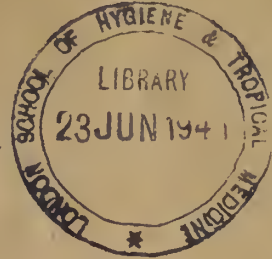


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City of Birmingham



REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR

1936

BIRMINGHAM:
TEMPLAR PRINTING WORKS, EDMUND STREET
1937



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PUBLIC HEALTH DEPARTMENT,
THE COUNCIL HOUSE,
BIRMINGHAM.

TO THE CHAIRMAN AND MEMBERS, PUBLIC HEALTH AND MATERNITY AND
CHILD WELFARE COMMITTEE.

I submit my report on the health of Birmingham during 1936. It will sufficiently indicate the directions in which the various services for the public health have operated and expanded during the year.

As for England and Wales as a whole, so for Birmingham, there was a slight rise in the death-rate for the year. The death-rate was, however, a low one as compared with that of other large cities. The year also saw a slight rise in the birth-rate, and a small drop in the infant mortality, the mortality under one month, the mortality between 1 and 2 years, and between 2 and 5 years. It may be said, therefore, that the conditions which, affecting old people, showed their effect in a slightly raised death-rate, failed to prevent the continued improvement in health of the infant and young child. We cannot claim the same, however, for the mother. There was an increase, though not a large one, in the maternal mortality rate, arising mainly from certain deaths from haemorrhage and from accidents of pregnancy. Your Committee approached the Maternity Hospital during the year with a view to establishing an emergency ambulance and surgical service, popularly labelled a "flying squad," to take a specialist surgeon, a nurse and equipment to the home where a woman in labour is in a grave emergency such that she is unfit at the moment to be transported to hospital. That service came into effect during the year, and already has been instrumental in saving life.* It will deal with the precise type of condition which has played a serious part in the maternal mortality rate for 1936.

The incidence of scarlet fever has continued somewhat high, though the disease has been almost uniformly mild. The prevalence of diphtheria has been almost identical with that for 1935 ; but on the whole the severity, while still great, has been less than in the previous year. Tuberculosis happily continues steadily to diminish in prevalence and in mortality, though it still takes a high place among the agencies gravely inimical to national health and welfare.

The hospitals, general and special, have had a heavy period of activity during the year. The general hospitals in particular have felt the stress of a growing tendency towards hospitalization without a corresponding growth in hospital beds to meet the pressure. Decisions reached by the City Council in regard to certain extensions at Selly Oak Hospital will be dealt with in next year's report.

The year has been a somewhat difficult one in relation to housing. Owing to the widespread difficulty in the erection of sufficient new houses, it proved necessary for the City Council temporarily to suspend the consideration of representations of clearance areas. With improving conditions as to house building, the Council were able, at the beginning of 1937, to withdraw that prohibition.

The maternity and child welfare services of the City continue to grow, both in the scope of the services and in the numbers of women and of young children served by them. There is probably no section of your Committee's activities which gives a more direct or a greater economic return for the money and energy spent.

For other particulars I would refer readers to the text of the report. It is a pleasure again to record my grateful thanks to you, Mr. Chairman, and to the Committee for much kindness and consideration, and to all members of the staff for their loyal and enthusiastic service during the year.

I am,

Your obedient Servant,

H. P. NEWSHOLME,

Medical Officer of Health.

July, 1937.

CITY OF BIRMINGHAM

REPORT OF THE MEDICAL OFFICER OF HEALTH For the Year 1936

SUMMARY OF STATISTICS.

Area (in acres), 51,147.

Population (Census, 1931), 1,002,603.

Estimated by Medical Officer, 1936, 1,038,000.

Estimated by Registrar-General, 1936, 1,018,800.

Total number of houses including shops, etc., with houses at April 1st, 1936, according to rate books, 268,310.

Rateable value, £6,893,926 (April 1st, 1936).

Sum represented by a penny rate, £26,363.

Extracts from vital statistics of the year 1936:—

Births—Males :	8,415	}	Legitimate,	15,833	}	Birth Rate, 15.8.
Females :	7,971		Illegitimate,	553		

Stillbirths, 590. Rate per 1,000 total live and stillbirths, 35.

Deaths, 11,690. Crude Death-rate 11.3. Standardised Death-rate 12.4.

Percentage of deaths occurring in public institutions—52 per cent.

Number of women dying in, or in consequence of, childbirth—

					Deaths.	Rate per 1,000 live and still births.
From sepsis	...	...	...	...	25	1.47
From other causes	...	...	...	...	35	2.06
					Total 60	3.53

Deaths of Infants under one year of age per 1,000 live births:—

Legitimate, 61. Illegitimate, 105. Total, 62.

Deaths from Cancer, 1,632.

Deaths from Measles (all ages), 39.

Deaths from Whooping Cough (all ages), 107.

Deaths from Diarrhoea (under two years of age), 88.

1. POPULATION AND MORTALITY STATISTICS.

POPULATION.

The Registrar General estimated the population of Birmingham at 1,018,800 on June 30th, 1936. The local estimate, based on the natural increase due to excess of births over deaths, with an allowance for migration, was 1,038,000.

BIRTHS.

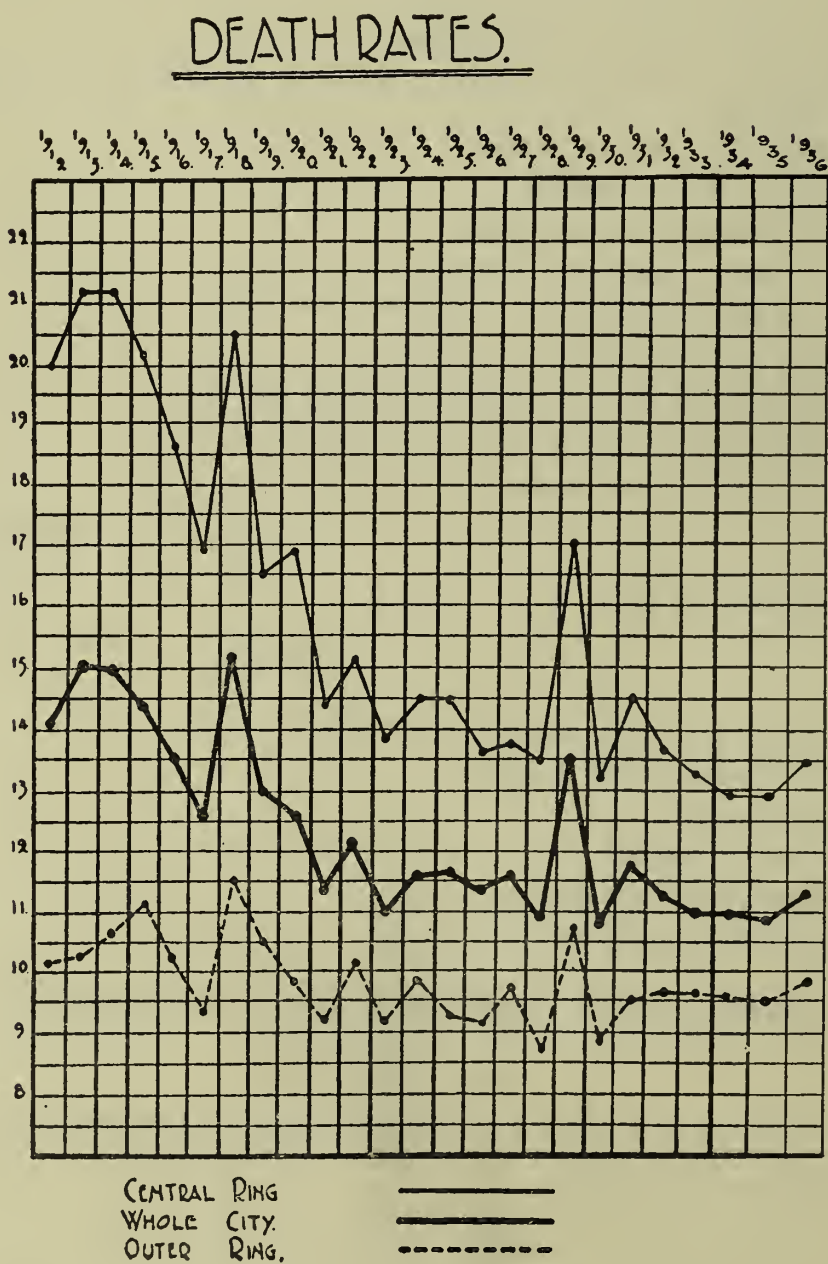
(See page 120).

DEATHS.

The deaths belonging to Birmingham numbered 11,690 as compared with 11,233 in 1935 and 11,347 in 1934. Of these deaths 6,031 were of males and 5,659 of females.

The death-rate for 1936 was 11.3. The average for the ten years prior to 1936 was 11.4, while that for 1935 was 10.9.

The fluctuations in the death-rate during the past 25 years are shown on the diagram below, which also shows the rates in the Central and Outer groups of wards.



The progress in reduction of the death-rate in England and Wales and in Birmingham during the past 66 years can be seen from the figures below:—

DEATH-RATES IN BIRMINGHAM AND ENGLAND AND WALES.

		Birmingham	England and Wales
1871-1875 (Old City)	...	25.2	22.0
1876-1880	..	22.8	20.8
1881-1885	..	20.7	19.4
1886-1890	..	20.2	18.9
1891-1895	..	20.3	18.7
1896-1900	..	20.5	17.7
1901-1905 (Present Area)	...	16.5	16.0
1906-1910	..	15.0	14.7
1911-1915	..	14.6	14.3
1916-1920	..	13.4	14.4
1921-1925	..	11.5	12.2
1926-1930	..	11.6	12.1
1931-1935	...	11.2	12.0
1927	..	11.6	12.3
1928	..	10.9	11.7
1929	..	13.5	13.4
1930	..	10.8	11.4
1931	..	11.7	12.3
1932	..	11.3	12.0
1933	..	11.0	12.3
1934	..	11.0	11.8
1935	..	10.9	11.7
1936	..	11.3	12.1

Up to 1915 the mortality in Birmingham was above that of England and Wales. During the 21 years since that date, with one exception, it has been below the rate for the country as a whole.

The following table sets out the death-rate in 1936 for the eleven largest towns, and indicates that, despite its size, Birmingham occupies a favourable position:—

COMPARATIVE DEATH RATES IN ELEVEN LARGEST TOWNS.

London	...	...	...	...	...	...	12.3 per 1,000
Glasgow	...	...	...	...	...	...	14.5
Birmingham	...	...	...	...	...	...	11.3
Liverpool	...	...	...	...	...	...	12.9
Manchester	...	...	...	...	...	...	13.5
Sheffield	...	...	...	...	...	...	12.2
Leeds	...	...	...	...	...	...	13.6
Edinburgh	...	...	...	...	...	...	13.4
Bristol	...	...	...	...	...	...	12.3
Bradford	...	...	...	...	...	...	14.9
Hull	...	...	...	...	...	...	12.7

MORTALITY BY AGE AND SEX.

The deaths at different age periods were as follows:—

	Males.	Females.	Persons.
Under 1 year	584	437	1,021
1 and under 2	72	59	131
2 and under 5	74	71	145
5 and under 15	130	115	245
15 and under 25	194	219	413
25 and under 45	591	544	1,135
45 and under 65	1,879	1,360	3,239
65 and under 75	1,414	1,279	2,693
75 and upwards	1,093	1,575	2,668

The deaths at ages over 65 years are largely to be regarded as in the natural order of things and to that extent as inevitable. They number 5,361 out of a total of 11,690.

The deaths at ages below 65 years contain large groups capable of marked reduction under healthy conditions of life and granted the whole-hearted co-operation of the public in living the healthy life. In 1936 such largely preventable deaths numbered 6,829, or 54 per cent. of the total.

Included among these are 1,021 deaths under 1 year of age, and a further 276 deaths between 1 and 5 years. The causes of mortality in these groups are set out in detail in the section of this report on Maternity and Child Welfare (Section VII).

Among school children (5 to 15 years), the largest individual causes of death were accidents (37), and diphtheria (34), while rheumatic fever (24), nervous diseases (21), and tuberculosis (22), were responsible for a not inconsiderable mortality at this age.

Among young people between 15 and 25 years, there were 413 deaths (8 per week on an average) of which 146 were due to tuberculosis.

In early adult life (25 to 45 years), 1,135 deaths occurred. At this age period also tuberculosis heads the list of diseases with 288 deaths.

In later adult life (45 to 65 years), the largest number of deaths was caused by heart and circulatory diseases (895) cancer being second (696 deaths), respiratory diseases third (378), and tuberculosis fourth with 279.

Fuller details as to the causes of death at different age periods and in the two sexes are given in Table II at the end of this report.

INFANT MORTALITY. (See page 122).

DEATH-RATES IN WARDS.

In 1936 the death-rates in the different Wards were as set out below. As in previous years there continue to be marked differences in the death-rates in the various Wards of the City:—

DEATH-RATES IN WARDS.						
Central Wards	{	St. Paul's	.....	.....	.....	1936. 13.8
		St. Mary's	.....	.....	.....	15.7
		Duddeston and Nechells	.....	.....	.....	13.2
		St. Bartholomew's	.....	.....	.....	12.4
		St. Martin's and Deritend	.....	.....	.....	13.8
		Market Hall	.....	.....	.....	13.0
		Ladywood	.....	.....	.....	12.5
						Average 13.5
Middle Ring	{	Lozells	.....	.....	.....	13.7
		Aston	.....	.....	.....	12.0
		Washwood Heath	.....	.....	.....	8.7
		Saltley	.....	.....	.....	10.8
		Small Heath	.....	.....	.....	11.2
		Sparkbrook	.....	.....	.....	13.2
		Balsall Heath	.....	.....	.....	14.6
		Edgbaston	.....	.....	.....	12.1
		Rotton Park	.....	.....	.....	12.3
All Saints	.....	.....	.....	13.5		
						Average 12.2
Outer Ring	{	Soho	.....	.....	.....	12.9
		Sandwell	.....	.....	.....	11.5
		Handsworth	.....	.....	.....	12.7
		Perry Barr	.....	.....	.....	6.1
		Erdington	.....	.....	.....	9.7
		Gravelly Hill	.....	.....	.....	8.9
		Bromford	.....	.....	.....	8.5
		Stechford	.....	.....	.....	8.9
		Yardley	.....	.....	.....	9.3
		Acocks Green	.....	.....	.....	9.1
		Hall Green	.....	.....	.....	6.7
		Sparkhill	.....	.....	.....	12.7
		Moseley and King's Heath	.....	.....	.....	12.0
		Selly Oak	.....	.....	.....	9.9
		King's Norton	.....	.....	.....	9.7
Northfield	.....	.....	.....	7.8		
Harborne	.....	.....	.....	9.7		
						Average 9.8

In November 1934 many alterations were made in the boundaries of the Wards of the City, making it impossible to compare rates for individual Wards in 1936 with those in earlier years. It is, however, roughly correct to compare the total figures for the Central, Middle Ring and Outer Ring of Wards with those for previous years and the mean death-rates for the three groups are given in the next table:—

	Central Wards.	Middle Ring.	Outer Ring.
1930	13.3	10.8	8.9
1931	14.5	12.3	9.5
1932	13.6	11.7	9.8
1933	13.3	11.4	9.7
1934	12.9	12.0	9.6
1935	12.9	11.6	9.5
1936	13.5	12.2	9.8

The diagram on page 8 shows the death-rate during the past 25 years in the City as a whole contrasted with that of the Central Wards and of the Outer Ring. It will be noted that the mortality in the Central Wards is much nearer to that of the whole City than it was 25 years ago. Nevertheless the difference between the Central and the Outer Wards is still great. In 1936 there were 2,828 deaths in the Central Wards. If the death-rate in them had been as low as it was in the Outer Ring 775 of these deaths would have been avoided.

In the next table the mortality from some of the more prominent causes of death is shown for the three groups of Wards.

DEATH-RATES IN GROUPS OF WARDS, 1936.

	Central Wards	Middle Ring	Outer Ring	City
Measles .....	.06	.02	.03	.04
Whooping Cough.....	.21	.10	.06	.10
Diphtheria .....	.11	.07	.03	.06
Influenza .....	.10	.18	.12	.13
Tuberculosis of Respiratory System .....	.96	.73	.58	.71
Other forms of Tuberculosis .....	.08	.08	.06	.07
Cancer, Malignant Disease	1.77	1.72	1.36	1.57
Diseases of Nervous System and Sense Organs .....	.81	.76	.60	.69
Diseases of Heart	3.24	3.05	2.24	2.71
Other Diseases of Circulatory System .....	.81	.89	.58	.72
Bronchitis.....	.46	.27	.23	.29
Pneumonia (all forms)	1.06	.84	.61	.77
Other Diseases of Respiratory System .....	.20	.20	.11	.16
Diarrhoea and Enteritis .....	.18	.11	.10	.12
Other Diseases of Digestive System .....	.53	.52	.47	.50
Non-Venereal Disease of Genito-urinary System .....	.48	.47	.42	.45
Premature Birth and Diseases of Early Infancy .....	.69	.45	.50	.53
Old Age .....	.21	.23	.23	.24
Violence (all forms) .....	.60	.49	.46	.50
Other Causes .....	.95	1.04	.81	.91

In almost every instance the mortality is higher in the Central Wards than in the Outer Ring. This excessive mortality is very noticeable in the case of pneumonia, tuberculosis and heart diseases. In the case of pneumonia, the deaths last year in the Central Wards numbered 222. If the mortality had been no higher than in the Outer Ring they would have numbered 128, a saving of 94 lives.

PRINCIPAL CAUSES OF DEATH.

Particulars of the deaths from individual causes at different age periods and in the two sexes are set out in Table II at the end of this Report. The relative mortality attributable last year to some of the more important of these causes is shown in the diagram below.



The statistics relating to infectious diseases (including tuberculosis) are dealt with in detail in Section VI of this Report, and those relating to diarrhoea, prematurity and other infantile complaints in Section VII.

CANCER.

The deaths from cancer numbered 1,632 as compared with 1,571 in 1935. The part of the body primarily affected was as follows:—

	1936.	1935.
Lip, tongue, palate, jaw, and pharynx	85	85
Oesophagus, stomach, liver, pancreas	451	438
Peritoneum, intestine, rectum	390	366
Female organs of reproduction	165	148
Breast	169	199
Skin	7	14
Other parts	365	321

The death-rate in Birmingham and in England and Wales is shown in the table below :—

DEATH-RATE PER 1,000 FROM CANCER.

				Birmingham.	England and Wales.
1927	...	...	...	1.36	1.38
1928	...	...	...	1.35	1.42
1929	...	...	...	1.34	1.44
1930	...	...	...	1.43	1.45
1931	...	...	...	1.46	1.48
1932	...	...	...	1.45	1.51
1933	...	...	...	1.43	1.53
1934	...	...	...	1.43	1.56
1935	...	...	...	1.52	1.59
1936	...	...	...	1.57	—

CANCER DEATH-RATES IN WARDS.

	Ward.	Death-rate 1936.	
Central Wards	St. Paul's	2.08	Average 1.80
	St. Mary's	2.49	
	Duddeston and Nechells	1.53	
	St. Bartholomew's	1.56	
	St. Martin's and Deritend	1.54	
	Market Hall	1.92	
	Ladywood	1.45	
Middle Ring	Lozells	1.96	Average 1.72
	Aston	1.84	
	Washwood Heath	1.29	
	Saltley	1.55	
	Small Heath	1.62	
	Sparkbrook	1.73	
	Balsall Heath	2.09	
	Edgbaston	1.61	
	Rotton Park	1.74	
Outer Ring	All Saints	1.73	Average 1.40
	Soho	1.66	
	Sandwell	2.10	
	Handsworth	1.46	
	Perry Barr	0.63	
	Erdington	1.48	
	Gravelly Hill	1.22	
	Bromford	1.58	
	Stechford	1.08	
	Yardley	1.13	
	Acocks Green	1.14	
	Hall Green	0.90	
	Sparkhill	2.14	
	Moseley and King's Heath	1.76	
	Selly Oak	1.63	
	King's Norton	1.68	
	Northfield	1.03	
	Harborne	1.17	

In some of the newer parts of the town, such as Perry Barr and Hall Green, the favourable death-rate in respect of cancer is no doubt attributable to the small number of people there who are at an age when they are likely to suffer from the disease. The number of deaths in individual Wards is, however, so low as to make comparison between Wards unjustifiable.

FACILITIES AVAILABLE FOR THE DIAGNOSIS AND TREATMENT OF CANCER.

FACILITIES PROVIDED BY THE LOCAL AUTHORITY.

At Dudley Road Hospital a Deep X-ray Therapy Department has been under active operation for the past 13 years. Two theatres are provided for the treatment of cases, one fitted with a Stabilivolt machine working up to 200 K.V., and the other a neo-intensive machine working up to 180 K.V. Four beds for men and four for women are provided regularly for in-patient treatment, but these are capable of expansion as and when required.

Radon is obtained from the Birmingham University, while cases considered suitable for radium treatment are referred to the Radium Centre at the Birmingham General Hospital.

The Public Health Committee continue to pay an annual contribution of £250 to the Birmingham Branch of the British Empire Cancer Campaign in support of their work on cancer research.

In 1934 a legacy of £1,000 was left to the City Council by the late J. R. Turner for cancer research work. It was decided to pay the legacy to the British Empire Cancer Campaign (Birmingham Branch) over a period of three years for research work in connection with cancer of the lungs.

FACILITIES PROVIDED BY THE RADIUM CENTRE AND VOLUNTARY HOSPITALS.

The Birmingham General Hospital in conjunction with the University became one of the National Radium Centres in 1930. There are 32 beds available for cancer treatment at that Hospital. The radiation therapy comprises treatment by radium and by X-ray.

In 1936 there were nearly 2 grammes of radium at the Birmingham General Hospital, and .37 grammes at the Queen's Hospital, together with .3 grammes at the Women's Hospital and 41.4 milligrammes at the Children's Hospital.

In connection with the National Radium Centre a radon service has been established at the Birmingham University supplying radon to a large number of hospitals within a radius of about 40 miles.

An X-ray Therapy service is provided at the General Hospital. The apparatus comprises 3 Deep Therapy sets and one Chaoul set. The facilities for X-ray Therapy are available also for patients from the Queen's Hospital, while there is free inter-change of patients between the Voluntary and Municipal Hospitals in respect of both X-ray and radium treatment.

DISEASES OF THE HEART AND BLOOD VESSELS.

There were 3,558 deaths from these diseases as compared with 3,242 in 1935. The death-rates during the past ten years have been as follows :—

				Birmingham.	England and Wales.
1927	...	...	...	2.28	2.52
1928	...	...	...	2.41	2.69
1929	...	...	...	2.76	3.06
1930	...	...	...	2.57	2.83
1931	...	...	...	2.90	3.14
1932	...	...	...	2.73	3.18
1933	...	...	...	2.94	3.30
1934	...	...	...	3.04	3.33
1935	...	...	...	3.14	3.46
1936	...	...	...	3.43	—

The death-rates in Birmingham are somewhat below those in England and Wales.

The age distribution of the deaths in 1936 was as follows :—

Under 1 year	...	...	...	...	3	0.1%
1 and under 2	...	...	...	...	1	0.0%
2 ,, 5	...	...	...	...	5	0.1%
5 ,, 15	...	...	...	...	12	0.3%
15 ,, 25	...	...	...	...	35	1.0%
25 ,, 45	...	...	...	...	145	4.1%
45 ,, 65	...	...	...	...	895	25.2%
65 ,, 75	...	...	...	...	1,141	32.1%
75 and over	...	...	...	...	1,321	37.1%

DEATH-RATES FROM DISEASES OF HEART AND BLOOD VESSELS.

	Ward.	Death-rate 1936.	
Central Wards	St. Paul's	4.22	Average 4.03
	St. Mary's	3.99	
	Duddeston and Nechells	3.68	
	St. Bartholomew's	4.00	
	St. Martin's and Deritend	4.45	
	Market Hall	3.84	
	Ladywood	4.06	
Middle Ring	Lozells	4.83	Average 3.94
	Aston	3.75	
	Washwood Heath	2.91	
	Saltley	2.97	
	Small Heath	3.61	
	Sparkbrook	4.53	
	Balsall Heath	4.79	
	Edgbaston	3.77	
	Rotton Park	3.83	
Outer Ring	All Saints	4.43	Average 2.91
	Soho	3.98	
	Sandwell	3.76	
	Handsworth	4.49	
	Perry Barr	1.10	
	Erdington	2.99	
	Gravelly Hill	3.28	
	Bromford	2.47	
	Stechford	2.08	
	Yardley.....	2.63	
	Acocks Green	2.50	
	Hall Green	1.59	
	Sparkhill	4.06	
	Moseley and King's Heath	4.09	
	Selly Oak	2.65	
	King's Norton	3.04	
	Northfield	1.65	
	Harborne	3.07	

BRONCHITIS, PNEUMONIA AND OTHER RESPIRATORY DISEASES.

The mortality from these diseases varies greatly from year to year, being influenced markedly by weather conditions and by the prevalence of such diseases as influenza, measles or whooping-cough. In 1936 the mortality was comparatively low, though rather higher than in 1935.

The mortality in recent years has been as follows :—

	Birmingham.	England and Wales.
1927	1.89	1.93
1928	1.56	1.51
1929	2.26	2.10
1930	1.32	1.30
1931	1.61	1.60
1932	1.47	1.36
1933	1.32	1.39
1934	1.26	1.24
1935	1.09	1.16
1936	1.22	—

Unlike heart disease, respiratory diseases generally cause a somewhat higher mortality in Birmingham than in England and Wales as a whole. A considerable part of the mortality occurs in early life, the deaths last year being distributed as follows:—

Under 1 year	...	...	168	or	13.3%
1 and under 2 years	...	...	38	,,	3.0%
2 " 5	...	...	27	,,	2.1%
5 " 15	...	...	23	,,	1.8%
15 " 25	...	...	28	,,	2.2%
25 " 45	...	...	126	,,	10.0%
45 " 65	...	...	378	,,	29.8%
65 " 75	...	...	221	,,	17.4%
75 and over	...	...	258	,,	20.4%
All Ages	...	...	1,267		—

DEATH-RATE PER 1,000 FROM RESPIRATORY DISEASES.

	Ward.	Death-rate 1936.	
Central Wards	St. Paul's	1.68	Average 1.70
	St. Mary's	1.92	
	Duddeston and Nechells	1.67	
	St. Bartholomew's	1.53	
	St. Martin's and Deritend	2.07	
	Market Hall	1.52	
	Ladywood	1.52	
Middle Ring	Lozells	1.36	Average 1.31
	Aston	1.42	
	Washwood Heath	0.97	
	Saltley	1.17	
	Small Heath	1.13	
	Sparkbrook	1.27	
	Balsall Heath	1.63	
	Edgbaston	1.47	
	Rotton Park	1.13	
	All Saints	1.53	
Outer Ring	Soho	1.66	Average 0.97
	Sandwell	1.00	
	Handsworth	1.24	
	Perry Barr	0.54	
	Erdington	0.92	
	Gravelly Hill	0.93	
	Bromford	0.54	
	Stechford	1.00	
	Yardley	0.95	
	Acocks Green	0.99	
	Hall Green	0.59	
	Sparkhill	1.47	
	Moseley and King's Heath	1.15	
	Selly Oak	0.88	
	King's Norton	0.73	
	Northfield	0.80	
	Harborne	1.14	

It will be seen that respiratory diseases are much more common as a cause of death in the Central Wards than elsewhere.

The highest death-rate was 2.07 per 1,000 in St. Martin's and Deritend Ward; the lowest, 0.54 in Perry Barr and Bromford.

II. GENERAL PROVISION OF HEALTH SERVICES.

PUBLIC HEALTH OFFICERS.

General.

Medical Officer of Health	...	...	...	...	...	1
Secretary	...	...	...	...	...	1
Medical Staff, whole-time, for general purposes...	...	...	...	...	...	2
General Clerical and Financial Staff	...	...	...	...	...	59

Sanitary Department.

Staff of Sanitary Inspectors	...	...	...	...	...	85
Disinfectors, etc.	...	...	...	...	...	16
Cleansing Staff	...	...	...	...	...	6
Clerical Staff	...	...	...	...	...	10

Maternity and Child Welfare Department.

Medical Staff (whole-time)	...	...	...	...	...	16
Medical Staff (part-time)	...	...	...	...	...	20
Dental Staff (whole time)	...	...	...	...	...	1
Dental Staff (part time)	...	...	...	...	...	1
Health Visitors, Instructors, etc.	...	...	...	...	...	134
Caretakers and Cleaners	...	...	...	...	...	36
Porters and Gardeners	...	...	...	...	...	10
Nursing Staff (Hospitals & Homes)	...	...	...	...	...	106
Domestic and Laundry Staff	...	...	...	...	...	66
Clerical Staff	...	...	...	...	...	10

Tuberculosis Department.

Medical Staff	...	...	...	...	...	10
Nursing Staff (Sanatoria)	...	...	...	...	...	114
Domestic Staff	...	...	...	...	...	64
Porters, Gardeners, Stokers, Drivers	...	...	...	...	...	58
Tuberculosis Visitors and Dispensary Nurses	...	...	...	...	...	20
Clerical Staff	...	...	...	...	...	15
Others	...	...	...	...	...	8

Infectious Diseases Hospital

Medical Staff	...	...	...	...	...	7
Nursing Staff	...	...	...	...	...	212
Domestic Staff	...	...	...	...	...	70
Porters, Gardeners, Stokers, Drivers	...	...	...	...	...	58
Others	...	...	...	...	...	12

General Hospitals and Convalescent Homes.

Medical Staff	...	...	...	...	...	38
Nursing Staff	...	...	...	...	...	802
Domestic Staff	...	...	...	...	...	381
Porters, Gardeners, Stokers, Drivers	...	...	...	...	...	226
Clerical Staff	49
Workmen	58
Others	46

Works Department.

Manager, Workmen and Clerks	65
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Bacteriological Department.

Medical Staff	2
Assistants and Staff	15

Analytical Department.

City Analyst and Deputy	...	...	...	...	...	2
Assistants and Staff	...	...	...	...	...	4

Public Vaccination.

Public Vaccinators (part-time)	...	...	...	...	...	21
Vaccination Officers (whole-time)	...	...	...	...	...	6

Inspection of Cowsheds and Dairies and of meat and other foods is carried out by the Veterinary Department on behalf of the Public Health Committee.

CONSULTATION WITH VOLUNTARY HOSPITALS.

There has not been occasion during the year for formal consultation with the representatives of the Voluntary Hospitals under the terms of the Local Government Act, 1929. On a number of occasions the appropriate officers of Voluntary Hospitals have been consulted on matters of mutual interest or concern. During the year at the request of the Co-ordination Committee of the Birmingham Hospitals' Council a survey of hospital bed accommodation was made, particulars of which are given on page 27 of this Report.

POOR LAW MEDICAL OUT-RELIEF.

The Public Assistance Department have continued during the past year, the policy previously initiated, of making temporary appointments at the present time for all vacancies occurring among the Medical Staff of the out-relief department. The matter will be reviewed, however, again in the coming year and a further decision come to in the light of further experience obtained both locally and throughout the country generally. Two additional part-time temporary officers were appointed on April 1st, 1936, and on the retirement of a permanent part-time Officer in August, 1936, the vacancy was filled by a part-time temporary officer.

The accommodation for the chronic sick at Birmingham Infirmary has been heavily taxed during the year, more especially during the months of January, February and March, but it has also been noticeable that the drop in numbers which used to be associated with the summer months is much less pronounced and that the period over which it occurs is lessened. At the peak periods the difficulties of accommodating these cases have been very great and resort had to be made to the inclusion of a number of extra beds, beyond that which is advisable; even with this there has been delay in accepting cases which were referred to the institution both from their homes and the hospitals.

INSTITUTIONAL PROVISION FOR THE CARE OF MENTAL DEFECTIVES.

No new accommodation was provided during the year.

NURSING IN THE HOME.

The following cases were nursed at home during the year by the District Nursing Societies on behalf of the Public Health Department:—

Measles	...	...	...	...	...	...	...	...	38
Measles with Pneumonia	...	...	...	...	...	...	...	...	20
German Measles	...	...	...	...	...	...	...	...	1
Whooping Cough	...	...	...	...	...	...	...	...	20
Whooping Cough with Pneumonia	...	...	...	...	...	...	...	...	9
Whooping Cough with Measles	...	...	...	...	...	...	...	...	1
Pneumonia	...	...	...	...	...	...	...	...	669
Puerperal Pyrexia	...	...	...	...	...	...	...	...	12
Poliomyelitis	...	...	...	...	...	...	...	...	1
									<hr/>
									771
									<hr/>

The amount paid to the Societies on account of this work was £771.

Cases of Ophthalmia Neonatorum and other forms of ophthalmia are visited in their homes, as far as necessary, by nurses from the Eye Hospital, a grant of £420 per annum being paid to the hospital in respect of this service, together with travelling expenses.

MIDWIVES.
(See page 159).

BACTERIOLOGICAL LABORATORY.

The work done at the City Bacteriological Laboratory is set out in the statement below:—

Diphtheria Swabs :—									
(a)	For Practitioners	...	...	...	...	...	...	...	5,607
(b)	For Fever Hospitals	...	...	...	...	...	...	...	10,481
(c)	For virulence test	...	...	...	...	...	...	...	3,034
Fæces	...	...	...	...	...	...	...	...	1,443
Milks	...	...	...	...	...	...	...	...	599
Milk for Ministry of Health	...	...	...	...	...	...	...	...	52
Milk for tuberculosis	...	...	...	...	...	...	...	...	1,881
Haemolytic tests	...	...	...	...	...	...	...	...	706
Sputum for Tuberculosis	...	...	...	...	...	...	...	...	2,551
Shell-fish	...	...	...	...	...	...	...	...	108
Water samples	...	...	...	...	...	...	...	...	922
Vaccines prepared	...	...	...	...	...	...	...	...	15
Widal's reaction	...	...	...	...	...	...	...	...	1,036
Miscellaneous	...	...	...	...	...	...	...	...	7,030
Venereal Diseases :—									
Blood for Wassermann reaction	...	...	...	...	...	...	...	...	12,599
Cerebro-spinal fluid :—									
(a)	For Wassermann reaction	...	...	...	...	...	...	...	524
(b)	For cell count	...	...	...	...	...	...	...	122
Serum for spirochaetes	...	...	...	...	...	...	...	...	3
Films for Gonorrhoea	...	...	...	...	...	...	...	...	11,924
Urine examinations :—									
(a)	Microscopic	...	...	...	...	...	...	...	9
(b)	Chemical	...	...	...	...	...	...	...	1,097
Gonococcal fixation tests	...	...	...	...	...	...	...	...	3,823
Vaccines prepared	...	...	...	...	...	...	...	...	395
Cultures prepared	...	...	...	...	...	...	...	...	10,962
Van den Bergh's tests	...	...	...	...	...	...	...	...	3,761
Sigma reaction	...	...	...	...	...	...	...	...	447
Miscellaneous	...	...	...	...	...	...	...	...	2
Total									81,133

ANALYTICAL LABORATORY.

The following statement indicates the samples analysed in the City Analyst's Department:—

						1935.	1936.
Food and drug samples	...	...	...	...	...	5,464	5,472
Soot gauge samples	...	...	...	...	...	24	24
Fertilisers and feeding stuffs	...	...	...	...	...	22	21
Miscellaneous samples	...	...	...	...	...	731	974
						<hr/> 6,241 <hr/>	<hr/> 6,491 <hr/>
Food and Drugs Acts—							
Samples adulterated with preservatives only	...	...	...	...	...	4	1
Samples adulterated in other ways	...	...	...	...	...	218	233
Unmarked or improperly marked margarine	...	...	...	...	...	—	1
False labels	...	...	...	...	...	12	9
Number of vendors of incorrect samples	...	...	...	...	...	151	170
Number of prosecutions	...	...	...	...	...	15	9
Number of fines	...	...	...	...	...	9	8
Amount of fines and costs	...	...	...	...	...	£43/11/3	£44/9/6
Number of cautions	...	...	...	...	...	163	166

Particulars relating to this work are given in the Report of the City Analyst.

NEW LEGISLATION IN FORCE.

The following new legislation coming into force during the year ending 31st December, 1936, was delegated to the Public Health and Maternity and Child Welfare Committee:—

1. *Midwives' Act*, 1936—with the exception of Sub-sections 3, 4, 5 and 6 of Section 2.
2. Section 54 of the *Birmingham Corporation Act*, 1935 (delegated on the 15th October, 1935), came into operation on the 1st January, 1936.

On the 15th October, 1935, Sections 3, 5, 6 and 10 of the *Housing Act* were delegated to the Public Health Committee, together with Sections 1, 2 and 4 thereof in conjunction with the Estates and Public Works Committees. The date of the operation of certain of these Sections was fixed in reference to such appointed day or days as the Minister of Health might fix and this Act has now been repealed by the Housing Act, 1936, which came into operation on the 1st January, 1937.

3. The appropriate Sections of the *Housing Act*, 1937.
4. *Shops Act*, 1936—in operation as from 1st January, 1937.
5. *Retail Meat Dealers Shops (Sunday Closing) Act*, 1936—as from 1st January, 1937.
6. *Shops (Sunday Trading Restrictions) Act*, 1936—as from 1st May, 1937.

HOSPITALS.

No material alteration took place during the year in the amount and character of the hospital accommodation available.

The part which the hospitals—voluntary and municipal—play in the treatment of sickness may be inferred in some degree from the fact that last year 6,063 deaths out of a total 11,690 occurred in hospitals and kindred institutions. Details of these deaths are as follows :—

Dudley Road Hospital	...	...	...	...	...	...	...	1,223
Selly Oak Hospital	...	...	...	...	...	...	...	630
Selly Oak Infirmary	...	...	...	...	...	...	...	748
General Hospital	...	...	...	...	...	...	...	426
Queen's Hospital	...	...	...	...	...	...	...	216
Children's Hospital	...	...	...	...	...	...	...	210
Women's Hospital and Taylor Home			...	...	...	...	...	89
Maternity Hospital	...	...	...	...	...	...	...	57
City Fever Hospitals, Babies Hospital and Maternity Home					...	...	...	292
City Mental Hospitals	...	...	...	...	...	...	...	160
City Sanatoria	...	...	...	...	...	...	...	292
Birmingham Infirmary	...	...	...	...	...	...	...	984
Erdington House	...	...	...	...	...	...	...	363
Private Hospitals	...	...	...	...	...	...	...	166
Institutions outside the City		...	...	...	...	...	...	207

The extent to which hospitals are used for particular diseases can in some degree be estimated from the statement below:—

	No. of Deaths.	Percentage of Total Deaths from this cause.
Measles	29	74%
Whooping Cough	75	70%
Diphtheria	60	95%
Influenza	14	10%
Tuberculosis of Respiratory System	362	49%
Other forms of Tuberculosis	55	77%
Cancer	793	49%
Diseases of Nervous System, etc.	363	51%
Diseases of Heart and Circulatory System	1,473	41%
Bronchitis	78	26%
Pneumonia	506	63%
Other Respiratory Diseases	86	53%
Diseases of Digestive System	496	77%
Genito-urinary System	278	59%
Premature Birth, etc.	373	68%
Old Age	99	40%
Violence	326	63%
Other causes	597	63%
	<hr/>	<hr/>
	Total 6,063	52%
	<hr/>	<hr/>

CO-OPERATION WITH VOLUNTARY HOSPITALS.

There is a large degree of co-operation between the Public Health Department and the Voluntary Hospitals, and grants are paid by the Public Health and Maternity and Child Welfare Committee to certain hospitals in respect of the activities named below:—

(1) Under the Venereal Diseases Scheme patients are treated at special clinics at the General Hospital and the Children's Hospital.

(2) Cases of Bone Tuberculosis are treated at the Royal Cripples' Hospital and to a smaller extent at a number of other institutions.

(3) Puerperal Fever cases are admitted to the Women's Hospital and difficult cases of confinement to the Maternity Hospital.

(4) For Out-patient Orthopaedic cases under 5 years of age the Royal Cripples' Hospital receives a *per capita* fee.

(5) Cases of tonsils and adenoids and of eye and ear defects discovered at the Maternity and Child Welfare Centres are referred to the Children's Hospital for operation or treatment.

(6) Cases of ophthalmia neonatorum are sent to the Eye Hospital, for out-patient or in-patient treatment as may be appropriate, while home visiting of cases is carried out by nurses on the Hospital staff. The Eye Hospital opened a convalescent home at Burcot Grange, Blackwell, early in 1937; and a grant towards the work is being made by the Public Health Committee.

CITY GENERAL HOSPITALS.

The statistics relating to the work of Dudley Road and Selly Oak Hospitals and Selly Oak Infirmary are given below :—

(a) IN-PATIENTS.

	Dudley Road Hospital	Selly Oak Hospital	Selly Oak Infirmary
Total number of admissions (including infants born in hospital)	14,179	10,397	2,695
Number of women confined in hospital	1,158	783	—
Number of live births	1,125	754	—
Number of stillbirths	65	40	—
Number of deaths among the newly born (under 4 weeks)	65	22	—
Number of maternal deaths (confined in hospital)	7	3	—
Total number of deaths	1,217	649	764
Total number of discharges (including infants born in hospital)	12,993	9,706	1,911

(b) OUT-PATIENTS.

Number of persons seen in out-patient department	33,068	13,427	Run in con- junction with Selly Oak Hospital
Total number of attendances	133,319	76,679	
Number of women seen at ante-natal clinic	1,092	777	
Total attendances	3,204	2,846	

(c) CLASSIFICATION OF IN-PATIENTS DISCHARGED OR DIED.

(a) Acute infectious diseases	268	23	6
(b) Influenza	55	7	—
(c) Tuberculosis :			
Pulmonary	123	34	6
Non-pulmonary	44	21	12
(d) Malignant disease	345	175	174
(e) Rheumatism :			
(1) Acute rheumatism (rheumatic fever), together with sub-acute rheumatism and chorea	419	146	67
(2) Non-articular manifestations of so-called " rheuma- tism " (muscular rheumatism, fibrositis, lumbago, and sciatica)	160	37	7
(3) Chronic arthritis	49	66	44
(f) Venereal disease	28	2	5
(g) Puerperal pyrexia	16	—	—
(h) Puerperal fever	15	—	—
(i) Other diseases and accidents connected with child-bearing	1,019	545	—
(j) Mental diseases	54	4	3
(k) Senile decay	4	10	84
(l) Violence	1,810	1,380	89

In respect of cases not included above :—

(m) Diseases of the nervous system and sense organs	306	216	190
(n) " " respiratory system	1,741	720	481
(o) " " circulatory system	620	404	470
(p) " " digestive system	2,851	2,789	375
(q) " " genito-urinary	892	825	120
(r) " " skin	538	467	115
(s) Other diseases	465	928	287
(t) Maternity cases (mothers and babies)	2,317	1,503	54
(u) Any persons not falling under above headings	71	53	86

DUDLEY ROAD HOSPITAL.

Report by the Medical Superintendent, Dr. F. W. ELLIS.

During the past year 14,179 patients were admitted to the Hospital, an increase of 278 on the previous year, making it one of the busiest years on record.

The usual oscillations in numbers are shewn, accentuated no doubt by the fact that the cases at Selly Oak Hospital are consistently at a very high level, causing this Hospital double duty during the periods of high incidence of illness in the City.

This is the first full year when the admissions from Smethwick have been greatly restricted. The fall in numbers which would have resulted has, however, been fully made up by the taking of Handsworth's admissions.

The highest number of occupied beds was 905 on January 31st, the numbers remaining over 900 for about a week. This number of 905 is the largest number of patients that has ever been housed in the Hospital at one time and 123 extra beds were put up to cope with the admissions. The lowest number reached was 672 on August 28th.

On the 14th September the old Maternity Department was evacuated to the three wards in the 9 Block which had been set apart for this purpose for a number of years.

The work of demolition of the old building is now completed and the foundations of the new building well advanced. The extension of the Nurses Home on the North side by 40 cubicles is well advanced.

The serious difficulties in administration of the hospital, the result of inability to cope with the admissions of chronic sick at Birmingham Infirmary, reported last year, again presented a very urgent and increasingly difficult problem this year, more especially during the early months.

The Pathological and Bio-Chemical Department continue to show a material increase in each section. In the Radiological Department there is a marked increase of work over previous years, and the need for the reconstruction of this Department, which has been waiting for a great many years, becomes more and more urgent.

Associated with this, is the reconstruction of the massage and electro-therapeutic department and out-patient departments, and the urgent need for this work to be overtaken is very great indeed.

The building of the new theatres has begun, and when completed in the coming year the construction of the out-patient and massage and radiological departments will be undertaken more easily.

SELLY OAK HOSPITAL.

Report by the Medical Superintendent, Mr. R. P. STANLEY KELMAN, F.R.C.S.

As anticipated, this year has ended with another record total of admissions (10,397). This has been accomplished unfortunately at the expense of considerable overcrowding, while the average duration of stay of patients has been maintained at the same figure as for last year (17.8 days). The degree of overcrowding during the year is demonstrated by the high average occupied bed figure, viz., 504 and by the fact that the highest number of occupied beds on any one day was 577. These figures show clearly the strain placed on all sections of the Staff during the year. These results would not have been possible without complete team work and the full assistance of the special departments, which form an essential background to good hospital work.

Unfortunately the year ended with a large waiting list which shortage of accommodation made it impossible to avoid. I should like to take this opportunity of thanking the Birmingham and Midland Ear and Throat Hospital for the valuable help given by accepting for admission 200 cases from our ear, nose and throat waiting list.

The Isolation, and Ear, Nose, and Throat Ward extensions being provided should both relieve the existing overcrowding and enable the waiting lists to be kept within more reasonable dimensions. The lack of adequate isolation facilities is not only a source of danger but through ward infection means a loss in the total number of effective beds available during the year.

Miss A. M. E. Bodley, our keen and energetic Matron, who commenced her duties in Selly Oak Hospital as Matron in August, 1909, unfortunately retired in March, 1937. Miss Bodley has seen many changes in the Hospital since her appointment. The Nursing Staff has grown from a staff of 40 to that of 200 and the annual admissions have risen to the present total without there having been any addition to the total patient accommodation. Miss Bodley will carry with her the good wishes of all the Staff and of very many patients.

As with the last two years, owing to the pressure on the accommodation, it has been impossible to release a complete ward unit for redecoration.

The usual clinical meetings of the Selly Oak Hospital Medical Society have been held throughout the year and the University of Birmingham Medical Society and the Pathological and Clinical Section of the British Medical Association, met at Selly Oak Hospital on the 27th May and the 27th November, respectively.

The following figures show briefly the work of some of the special departments:—

Pathological Department :

Examinations	17,403
Autopsies	478

Bio-chemical Department :

Examinations	5,897
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Radiological Department :

Radiological examinations	19,507
Fluoroscopic examinations	1,689
Films used	14,704

Massage and Electro-therapeutic Department :

Cases	5,676
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Dental Department :

Attendances	2,335
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The classification of the wards remains as follows, but owing to the shortage of accommodation, has not been strictly adhered to—

General Medical Wards
General Surgical Wards
General Children's Wards
Male Urological Ward
Fracture Wards
Gynaecological Ward
Ear, Nose and Throat Wards
Maternity Department
Staff Sick Bay.

SELLY OAK INFIRMARY.

Report by the Medical Superintendent, MR. R. P. STANLEY KELMAN, F.R.C.S.

The following are some statistics showing the work done:—

Total admissions	...	...	...	...	...	2,695
Average daily occupied beds	...	...	...	...	...	646
Highest number of occupied beds on any one day...	...	...	...	...	...	697
Lowest number of occupied beds on any one day...	...	...	...	...	...	592

Like Selly Oak Hospital, Selly Oak Infirmary, as the above figures show, has shared in the heavy pressure on its accommodation.

Great credit is due to the Nursing Staff, the majority of whom are non-resident, for the valuable work done during the year. The successful and cheerful nursing of the chronic sick requires a high standard of nursing and is often an arduous and trying vocation, requiring considerable patience and tact.

The time will be welcomed when an effective training school in chronic nursing can be opened for Selly Oak Infirmary and full recognition given to this branch of nursing.

As each year passes the need becomes even more prominent for additional Staff accommodation. This is one of our main difficulties to-day.

GENERAL CONVALESCENT HOMES.

Wassell Grove Convalescent Home for Women and Children.

The Home has been open throughout the year. The total number of admissions was 623 as compared with 677 during the year 1935. Of the 623 there were 74 Out-relief cases, 264 from Dudley Road Hospital and 246 from Selly Oak Hospital.

The discharges from the Home include 239 women fit for work and 107 improved, and 239 children quite well and 27 improved.

The daily average during the year was the same as 1935, viz. : 33, and the lowest daily average was 14 during the month of December.

Tower House Convalescent Home for Nurses.

The value of this home to the nurses is being more appreciated and both for convalescence and for week-end visits is proving itself extremely useful.

"OAKLANDS" CONVALESCENT HOME.

This Convalescent Home has been a most useful asset in relieving the pressure on the accommodation of the hospitals and in completing the treatment of patients.

The admission of men and boys for the year totalled 581 and the main conditions for which treatment was continued at the Home were as follows :—

Pneumonia	...	...	...	...	151
Gastric and Duodenal Ulcers	...	...	...	...	91
Rheumatism	...	...	...	...	83
Debility	...	...	...	...	83
Bronchitis	...	...	...	...	48
Neurasthenia	...	...	...	...	20
Mastoidectomies	...	...	...	...	20
Chorea	...	...	...	...	18
Appendicectomies	...	...	...	...	15
Cardiac conditions	...	...	...	...	15
Empyema	...	...	...	...	14
Fibrosis of Lung	...	...	...	...	14
Catarrhal Jaundice	...	...	...	...	9

MATERNITY AND NURSING HOMES.

(See pages 149, 161).

UNMARRIED MOTHERS AND ILLEGITIMATE CHILDREN.

(See page 157).

MATERNAL MORTALITY.
(See page 130).

HEALTH VISITING.
(See page 136).

CHILDREN ACT, 1908, CHILDREN AND YOUNG PERSONS ACTS 1932 AND 1933.
(See page 157).

BLIND PERSONS ACT, 1920.

The City Council are responsible for the administration of the Blind Persons Act, 1920, and have made arrangements with the Birmingham Royal Institution for the Blind for the following services to be provided on their behalf:

(1) *Workshop employees.*

At the end of the year under review there were 194 workshop employees registered. The trades practised are, for men—basket making, brush making, bedding, cane furniture, chair seating, etc. For women—hand knitting, round and flat machine knitting, chair seating, etc. Although the weekly pay of these employees is at the Trade Union or other standard rate customary in the particular class of work on which the blind person is employed, the handicap of blindness prevents most blind persons from earning a livelihood if they are paid only what they can earn on a strictly commercial basis. It is necessary, therefore, to augment their earnings and during 1936-7 the City Council paid £11,120 for that purpose.

(2) *Home Workers.*

There are 24 of these workers registered. Their ages vary from about 20 to 70 years and the occupations carried out are similar to those of the workshop employees, plus such work as wood-chopping, piano tuning and repairing, music teaching, netting, boot repairing, etc.

Each home worker is provided with the requisite tools and equipment for his particular trade, and where necessary workshops are provided. Raw materials are supplied at cost price, and every assistance is given in helping him to dispose of his goods. Augmentation of earnings is provided for the home worker, and the amount paid by the City Council for this purpose was £1,029.

(3) *Unemployables.*

These constitute the largest category of the blind, and 1,117 were on the register in 1936. The needs of these persons are two-fold—financial and social. Financial assistance is provided by the Local Authority making up their income to 25/- per week. The cost to the Corporation of this service was £19,405. As regards social assistance, the pivot of this service is the Home Teacher, whose duties include the teaching of Braille and Moon type, pastime occupation, home visiting and welfare work. The aim of the service is to secure that systematic home visiting should be provided for all blind persons needing it.

Cowley Home.

This Home provides accommodation for some 25 homeless blind women. The contribution to the cost by the Local Authority for 1936-7 was £444.

Other responsibilities in relation to the welfare of the blind undertaken by the City Council include such matters as the maintenance of blind children at Sunshine Home. The contribution to the cost by the Local Authority for 1936-7 was £70.

The total contribution for all the blind services for 1936-7 was £35,675.

The following table gives particulars relating to *all* blind persons resident in Birmingham, including those mentioned above as coming within the scope of the Public Health Committee's responsibilities.

	Males.	Females.	Total.
Babies in Sunshine Home	2	—	2
Babies at Home	4	1	5
Babies in Public Assistance Institutions	4	1	5
Children at School—resident	8	14	22
Children at School—Day	6	7	13
Children of school age at home	4	2	6
Children of school age in Public Assistance Institutions	5	3	8
Children of school age in Public Health Department Hospitals	—	1	1
Adults in training—Resident	8	4	12
Adults in training—Day	7	7	14
Adults awaiting training	7	—	7
Workshop workers recognised	134	61	195
Other blind employees	13	8	21
Trained home workers	14	8	22
Unemployables at home.....	415	556	971
Unemployables in Public Assistance Institutions	33	49	82
Unemployables in Public Health Department Hospitals	8	13	21
Unemployables in Cowley Home	—	12	12
	<hr/> 672	<hr/> 747	<hr/> 1,419

REMOVAL OF INFIRM AND AGED PERSONS.

During 1936, 30 cases were investigated with a view to making use of Section 38 of the Birmingham Corporation (General Powers) Act, 1929, as compared with 25 cases in 1935 and 33 in 1934. Of these cases, 8 were males and 22 females. 19 of the cases were admitted to institutions or otherwise relieved, and 11 failed to fulfil the requirements and conditions of the Section. For the removal of two cases to hospital, it was found necessary to obtain a Magistrates Order.

On only one occasion was it found necessary to make use of Section 48 of the Birmingham Corporation Act, 1935, and a Magistrates Order for the removal of the person to hospital was obtained.

REPORT TO CO-ORDINATION COMMITTEE OF BIRMINGHAM HOSPITALS COUNCIL. ON SURVEY OF HOSPITAL BED ACCOMMODATION 1935.

SCOPE OF SURVEY.

In accordance with the request of the Co-ordination Committee of the Birmingham Hospitals Council, and through the generous co-operation of the respective hospital officers concerned, we submit the following information regarding hospital bed accommodation in Birmingham during the calendar year 1935.

The data set out in the attached tables deal with the following points :—

- (a) The number of beds available for men, women and children in the various voluntary and municipal hospitals. (Tables I—V).
- (b) The allocation of such beds to general medical or surgical or to special types of patient. (Tables II—V).
- (c) The number of patients admitted to the various hospitals, classified as to type. (Table VI).
- (d) Number of out-patients and of casualties, classified as to type. (Table VII).
- (e) Number of out-patient attendances. (Table VIII).
- (f) Average number of beds available, and of beds occupied.
- (g) Average length of stay in hospital.
- (h) Percentage of beds occupied by out-City patients, 1930-35.
- (i) Number of recovery (other than convalescent) beds.

} (Table IX).

It will be obvious that, through the varying methods of recording data in the several hospitals, it has not been possible to obtain full particulars in all these respects. It is, on the whole, cause for congratulation that the hospital staffs have found it possible to provide information even so complete as here set out. Where the information has not been capable of relatively ready provision, it has not been felt desirable to urge its provision at the cost of laborious dissection of registers and records.

EXTENT OF BED ACCOMMODATION.

This is provided in 15 voluntary and 20 municipal institutions. The data are summarised in Table I.

- (a) *Acute Sick* (including maternity). 2,032 beds are provided in the voluntary hospitals, and 7,407 in the municipal hospitals, giving a total of 9,439 beds, or 9.1 per 1,000 of the population. If beds for mental cases are excluded, the total becomes 5,189, or 5.0 per 1,000 of the population.
- (b) *Chronic Sick*. 20 beds are provided in a voluntary institution and 3,237 beds in municipal institutions, or 3.2 beds per 1,000 of the population.

This does not, however, accurately represent the bed accommodation so far as the acute sick are concerned, available for Birmingham patients; for a proportion of the beds are occupied by patients coming in from other areas. The extent to which this applies is seen in Table IX, the data in which yield the conclusion that on an average 23.9 per cent. of the beds in the voluntary hospitals as a whole are occupied throughout the year by patients who are not residents of Birmingham. This reduces the proportion of beds available for Birmingham acute sick to 8.7 beds per 1,000 of the population, or to 4.6 per 1,000 of the population if mental cases are excluded.

It is of some interest to note that there has been a fairly general, though slow, trend towards the allocation of larger numbers of beds to patients from beyond the City. Taking the records of those voluntary hospitals for which data are available both for 1930 and for 1935, the proportion of beds occupied by out-City cases has risen from 21.9 per cent. of the total in the former year to 27.2 per cent. in the latter year.

If only the general voluntary hospitals are considered, 22 per cent. of the beds are occupied throughout the year by non-residents of Birmingham, and this figure has risen from 19 per cent. in 1930 to 25 per cent. in 1935.

NATURE OF BED ACCOMMODATION.

- (a) *General medical and surgical cases.*

The beds allocated to general acute medical and surgical cases respectively are as follows :—

<i>Beds for</i>	<i>Men.</i>	<i>Women.</i>	<i>Children.</i>	<i>Total.</i>
General medical	347	352	516	1,215
General surgical	419	297	195	911
Medical or surgical, but unclassified	9	19	11	39
	775	668	722	2,165

- (b) *Special types of case.*

While the particulars are necessarily not wholly accurate as to the beds available for dealing with special types of case, apart from the precise particulars from the special hospitals, the following figures are, at any rate, an approximation towards the true position :—

<i>Beds for</i>	<i>Men.</i>	<i>Women.</i>	<i>Children.</i>	<i>Total.</i>
Gynaecology	—	263	—	263
Maternity	—	197	—	197
Ear, Nose and Throat	63	50	110	223
Ophthalmic	62	39	33	134
Neurological	9	25	7	41
Orthopaedic	68	61	185	314
Fractures	25	18	8	51
Skin	68	45	56	169
Acute venereal	18	31	12	61
Infectious		696		696
Tuberculosis	291	223	119	633
Mental and mental deficiency	2,881	2,862	377	6,120

EXTENT OF USE OF BED ACCOMMODATION.

(a) *Proportion of occupied beds.*

The proportion of occupied beds, expressed as a percentage of the beds available for acute cases at a number of hospitals was as follows during 1935 :—

	<i>% of available beds.</i>		<i>% of available beds.</i>
General Hospital	88	Ear and Throat Hospital	86
Queen's Hospital	90	Eye Hospital	71
Midland Hospital	76	Skin Hospital.....	83
Dudley Road Hospital	81	Nerve Hospital	93
Selly Oak Hospital	87	Children's Hospital	89
Royal Cripples' Hospital	95	Maternity Hospital	86
Moseley Hall	89	Women's Hospital	89

(b) *Average length of stay per patient.*

For the same hospitals, the average length of stay per patient during 1935 was as follows :—

	<i>No. of days' stay.</i>		<i>No. of days' stay.</i>
General Hospital	17	Ear and Throat Hospital	12
Queen's Hospital	17	Eye Hospital	15
Midland Hospital	15	Skin Hospital.....	25
Dudley Road Hospital	20	Nerve Hospital	35
Selly Oak Hospital	18	Children's Hospital	23
Royal Cripples' Hospital	84	Maternity Hospital	14
Moseley Hall	63	Women's Hospital	14

NUMBER OF IN-PATIENTS TREATED.

Tables I and VI set out the number of patients admitted to acute hospitals or chronic institutions as 71,960, or 1 in 14 of the total population of the City.

NUMBER OF OUT-PATIENTS TREATED.

Tables I and VII indicate that a total of 279,675 persons (225,709 to voluntary and 53,966 to municipal institutions), attended as out-patients, including casualties, making in all 1,139,339 attendances. The distribution of these, according to type of case, is given in some detail, though necessarily somewhat imperfectly, in Table VII.

H. P. NEWSHOLME,

Medical Officer of Health.

H. F. SHRIMPTON,

House Governor, Children's Hospital.

I. HOSPITAL SURVEY OF BIRMINGHAM SUMMARY OF BEDS & PATIENTS, 1935

VOLUNTARY.	Beds		Patients Admitted.	Out-Patients		MUNICIPAL.	Beds		Patients Admitted.	Out-Patients	
	Acute Sick.	Chronic Sick.		New Cases.	Total Attendances 1935		Acute Sick.	Chronic Sick.		New Cases.	Total Attendances 1935
General Hospital ...	487	—	8,532	69,418	192,298	Dudley Road Hospital	916	—	12,871	34,895	139,704
Jaffray Hospital ...	64	—	—	—	—	Selly Oak Hospital ...	520	—	9,296	13,380	78,769
Queen's Hospital ...	336	—	6,424	37,115	161,696	Selly Oak Infirmary ...	107	610	2,828	—	—
Moseley Hall ...	94	—	466	—	—	Canwell Hall ...	84	—	481	—	—
Midland Hospital ...	46	—	825	2,833	18,739	Carnegie Institute ...	10	—	144	—	—
Royal Cripples' Hospital	306	—	943	5,255	67,721	Yardley Green Rd. San. (Anti-Tuberculosis Centre)	325	—	888	45	4,676
Ear and Throat Hospital	50	—	1,334	10,625	41,866	West Heath Sanatorium	120	—	—	3,635	34,465
Eye Hospital ...	115	—	2,042	49,571	101,437	Romsley Hill Sanatorium	120	—	282	—	—
Skin Hospital ...	51	—	465	8,939	89,777	Salterley Grange San.	68	—	301	—	—
Nerve Hospital ...	41	—	388	1,732	30,350	Monyhull Colony ...	1,256	—	170	—	—
Dental Hospital ...	—	—	—	12,186	32,370	Coleshill Hall ...	400	—	121	—	—
Children's Hospital ...	248	—	7,151	20,321	104,398	Little Bromwich Hospital	600	—	106	—	—
Maternity Hospital ...	70	—	1,580	3,559	19,039	Witton Smallpox Hospital	60	—	4,410	—	—
Women's Hospital ...	124	—	2,940	4,155	13,895	Birmingham Infirmary	159	757	20 (S.F. Conv.)	—	—
Taylor Memorial Home	—	20	66	—	—	Erdington House ...	—	1,870	2,929	—	716 (Venereal Clinic)
						Winson Green Mental Hospital ... Rubery Mental Hosp. Hollymoor Men. Hosp.	2,594	—	1,345	—	—
						Wake Green Road Maternity Home ...	41	—	624	—	—
						Heathfield Road Maternity Home ...	27	—	1,313	1,181	4,458
									715	830	2,965
Total Voluntary Hospitals ...	2,032	20	33,116	225,709	873,586	Total Municipal Hospitals ...	7,407	3,237	38,844	53,966	265,753
						Grand Total Voluntary and Municipal Hospitals ...	9,439	3,257	71,960	279,675	1,139,339
								12,696			

III. HOSPITAL SURVEY: BEDS FOR WOMEN

[illegible]

VII. HOSPITAL SURVEY: OUTPATIENTS & CASUALTIES

VOLUNTARY

MUNICIPAL

NUMBER OF NEW OUT-PATIENTS OR "CASUALTIES" DURING 1935.	General.	Jaffray.	Queen's.	Moseley Hall.	Midland.	Royal Cripples'.	Ear and Throat.	Eye.	Skin.	Nerve.	Dental Hospital.	Children's	Maternity.	Women's	Taylor Memorial Home.	Dudley Road Hospital.	Selly Oak Hospital.	Selly Oak Infirmary.	Canwell Hall.	Carnegie Institute.	Yardley Green Road Sanatorium.	Anti-Tuberculosis Centre.	West Heath Sanatorium.	Romsey Hill Sanatorium.	Salterley Grange Sanatorium.	Monyhull Colony.	Coleshill Hall.	Little Bromwich Hospital (Infectious)	Witton Smallpox Hospital.	Birmingham Infirmary.	Erdington House	Winson Gn., Rubery & Hollymoor (Mental)	Wake Green Road Maternity Home.	Heathfield Road Maternity Home.	Totals, Voluntary and Municipal.		
Casualties ...	47931	-	18091	-	156	-	1373	24047	-	-	-	1433	-	-	-	23478	5050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	121559		
OUT-PATIENTS.																																					
General Medical ...	4896	-	3229	-	470	-	-	-	-	-	-	5973	-	-	-	6318	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55820	
General Surgical ...	6243	-	4947	-	953	-	-	-	-	-	-	6484	-	-	-	-	647	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27501	
Ear, Nose and Throat	1412	-	2030	-	203	-	7364	-	-	-	-	2431	-	-	-	-	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Eye ...	236	-	970	-	-	-	-	25524	-	-	-	771	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Skin ...	910	-	111	-	596	-	-	-	7303	-	-	255	-	-	-	308	346	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9175	
Dental ...	-	-	6695	-	100	-	-	-	-	-	12186	2244	229	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22108	
Ante-natal ...	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	861	377	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5989	
Post-natal ...	-	-	434	-	-	-	-	-	-	-	-	-	2049	-	-	711	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7043	
Gynaecology ...	1208	-	481	-	238	-	-	-	-	-	-	-	-	-	-	Deep X-ray	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Children's Diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Deep X-ray	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1324
Cancer ...	819	-	-	-	13	-	-	-	Deep X-ray	-	-	-	-	-	-	491	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	235
Diabetes ...	210	-	-	-	13	-	-	-	1	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	127	
Mental ...	-	-	127	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1788	
Neurological	-	-	-	-	6	-	-	-	-	1732	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5405	
Orthopaedic...	50	-	-	-	20	-	-	-	-	-	-	60	-	-	-	-	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1788	
Electrical Treatment	-	-	-	-	18	-	1888	-	1635	(Inc. in Orth. cases)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20309
Massage ...	2044	-	-	-	47	-	-	-	-	-	-	608	1024	-	-	2728	4420	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	some inc. in head- ing above	
Remedial Exercises	151	-	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other ...	2570	-	-	-	-	-	-	-	-	-	-	Spch def.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis ...	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45	3635	-	-	-	-	-	-	-	-	-	-	-	-	-	3680	
TOTAL ...	69418	-	37115	-	2833	5255	10625	49571	8939	1732	12186	20321	3559	4155	-	34895	13380	-	-	-	45	3635	-	-	-	-	-	-	-	-	-	-	-	830	1181	279675	

VIII. HOSPITAL SURVEY: OUTPATIENT ATTENDANCES

VOLUNTARY

MUNICIPAL

TOTAL ATTENDANCES OF CASUALTIES AND OF OUT-PATIENTS DURING 1935.	General.	Jaffray.	Queen's.	Moseley Hall.	Midland.	Royal Cripples.	Ear and Throat.	Eye.	Skin.	Nerve.	Dental Hospital	Children's	Maternity.	Women's	Taylor Memorial	Dudley Road Hospital.	Selly Oak Hospital.	Selly Oak Infirmary.	Canwell Hall.	Carnegie Institute.	Yardley Green Road Sanatorium.	Anti-Tuberculosis Centre	West Heath Sanatorium.	Romsley Hill Sanatorium.	Salterley Grange Sanatorium.	Monyhull Colony.	Coleshill Hall.	Little Bromwich Hospital (Infectious)	Witton Smallpox Hospital.	Birmingham Infirmary.	Erdington House.	Winson Gn., Rubery & Hollymoor Mental.	Wake Green Road Maternity Home.	Heathfield Road Maternity Home	2965	
	192298	-	161696	-	18739	67721	41866	101437	89777	30350	32370	104398	19039	13895	-	139704	78769	-	-	-	4676	34465	-	-	-	-	-	-	-	716	-	-	4458	-		

	Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

IX. HOSPITAL SURVEY: GENERAL DATA

VOLUNTARY MUNICIPAL

GENERAL DATA SUMMARY	General.	Jaffray.	Queen's.	Moseley Hall.	Midland.	Royal Cripples*.	Ear and Throat.	Eye.	Skin.	Nerve.	Children's	Maternity.	Women's	Taylor Memorial Home.	Dudley Road Hospital.	Selly Oak Hospital.	Selly Oak Infirmary.	Canwell Hall.	Carnegie Institute.	Yardley Green Road Sanatorium.	West Heath Sanatorium.	Romsley Hill Sanatorium.	Salterley Grange Sanatorium.	Monyhull Colony.	Coleshill Hall.	Little Bromwich Hospital (Infectious.)	Witton Smallpox Hospital.	Birmingham Infirmary.	Erdington House.	Winson Cn., Rubery & Hollymoor (Mental)	Wake Green Road Maternity Home.	Heathfield Road Maternity Home.	Totals, Voluntary and Municipal.
Average No. of beds available during 1935	472	-	325	88	46	291	50	115	35	41	248	70	124	20	916	562	718	84	10	325	120	120	68	1243	400	592	60	920	1870	2694	49	27	12703
Average No. of occupied beds during 1935	414	-	292	78	35	276	43	82	29	38	221	60	110	19	742	487	659	63	10	324	114	99	58	1250	382	468	-	878	1740	2694	37	20	11722
Average length of stay per patient during 1935 (days)	17	-	17	63	15	84	12	15	25	35	23	14	14	107	20	18	86	51	21	127	131	124	119	365	365	39	-	-	205	-	11	10	-
Percentage of occupied beds used by patients living outside City during :—																																	
1930	§ 20	-	20	12	-	45	23	-	-	27	22	12	23	15	*	-	-	-	-	-	-	32†	-	-	-	2‡	-	-	-	-	-	-	-
1931	-	-	23	13	-	48	25	-	33	34	20	11	23	12	10	-	-	-	-	-	-	32	-	-	-	2	-	-	-	-	-	-	-
1932	-	-	23	15	-	43	20	-	34	31	28	12	22	6	11	-	-	-	-	-	-	32	-	-	1	1	-	-	-	-	-	-	-
1933	-	-	25	13	17	40	22	-	45	36	27	12	19	17	12	-	-	-	-	-	-	32	-	-	-	1	-	-	-	-	-	-	-
1934	-	-	26	20	17	45	23	-	38	32	32	14	19	29	15	-	-	-	-	-	-	32	-	-	-	2	-	-	-	-	-	-	-
1935	28	-	29	17	18	47	21	13	50	34	34	15	21	27	9	-	-	-	-	-	-	32	-	-	7	-	-	-	-	-	-	-	-
Average of period	24	-	24	15	17	45	22	13 (1935 only)	40	32	27	13	21	18	11	-	-	-	-	-	-	32	-	-	-	2	-	-	-	-	-	-	-
Number of Recovery Beds at any Branch Hospital controlled by Main Hospital (excluding convalescent beds)	See Jaffray Ad. by Hos. Gen.	64	-	-	-	-	17	30 being provided	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

§ Figure ascertained at previous Hospital Survey

*Beds reserved for Smethwick cases.

†Beds reserved for Smethwick and West Bromwich cases.

‡Beds reserved for Sutton Coldfield cases.

III. SANITARY CIRCUMSTANCES.

WATER SUPPLY.

I am informed by Mr. Broadley, Secretary to the Water Department, that work is still in progress on the extension of the third Main on the Elan Aqueduct, and the flow of water into Frankley and Bartley Reservoirs has been maintained at a rate a little in excess of the consumption in the area of supply.

At Frankley Pumping Station new boiler plant and steam turbines have been installed during the year for the augmentation of the supply which is pumped into the Northfield Zone. An extension of the Northfield Service Reservoir is in course of construction, to meet the demands for water in the higher districts, due to extensive building development.

The 24in. steel main from Frankley to Hagley Road has been continued during the year, and a further extension of this main has also been sanctioned as far as Dudley Road.

Very considerable extensions have been made in the smaller sizes of cast-iron mains of 12in. to 4in. inclusive, all of which are lined with concrete to prevent corrosion.

A new booster pumping plant has been installed at Kings Vale, to maintain an adequate supply of water during periods of heavy draught on the high ground supplied from the Warley Level Zone.

There has been no need to utilise the old standby sources of supply during the year, with the exception of the Longbridge Well.

The quality of the water supplied throughout the year has been satisfactory.

WELLS.

Routine bacteriological and chemical sampling of water from some 350 shallow wells supplying dwelling houses in the City has been continued throughout the year, and use of Section 62 of the Public Health Act, 1875, has been made in a number of cases where there has been evidence of pollution, to enforce the provision of a supply of water from the Corporation mains. In certain instances, however, by reason of general disrepair, the properties have been found appropriate for representation under the Housing Acts, while in others the likelihood of early demolition in connection with the development of new housing estates has meant that a request for the cleaning out of the well and the improvement of local conditions has saved unwarranted expense on the part of owners. The condition of the well water supply has come to be an important factor in considering the action to be taken under the Housing Acts with regard to single houses or small blocks of dwellings in the outer areas of the City.

RIVERS AND STREAMS.

The annual report of the Tame Basin Joint Committee sets out particulars of a number of extensions or improvements in sewage plants, making for greater cleanliness of the River Tame and its tributaries.

The question of the condition of the river below Castle Bromwich again receives consideration. It is pointed out that after leaving Castle Bromwich the River Tame flows for a distance of twenty-seven miles through an agricultural area to its confluence with the River Trent, and in its passage through this area, it receives the comparatively clean waters of the Rivers Blythe and Anker, and a large volume of highly purified effluent from the works of the Birmingham Tame and Rea District Drainage Board. It would naturally be expected that under these conditions the quality of the river would improve, but the reverse is the case, and this rather confirms the opinion that the deterioration in the quality of the river after leaving Castle Bromwich is due to the decomposition of the organic matter which is discharged into the streams in the built up area during storm conditions, and carried down stream and deposited in this section of the channel of the river.

The observations have been repeated during the past year on the 16th July and the 17th September, in accordance with the instructions of the Executive Committee, and again the results have shown a reasonably satisfactory condition at Castle Bromwich.

Attention is drawn to the spirit of co-operation shown by a number of trading concerns in applying measures of control to liquid trade waste likely to damage sewage purification or to be injurious to the river.

The following comments are made on developments in relation to Birmingham during 1936 :—

“At the Minworth Works of the Birmingham Tame and Rea District Drainage Board, the fixed spray jet distributors on seven acres of bacterial filters have been replaced by travelling distributors, and the improvement effected by this work is equivalent to the addition of two acres of filters. A further series of humus separating tanks have also been completed and brought into operation.

“Good progress is being made with the work upon an important scheme for increasing the capacity of the Yardley Sewage Disposal Works, at an estimated cost of £149,000.

“The Engineer to the Board, Mr. H. C. Whitehead, has observed that the standard of purity of the effluent now discharged from the important Minworth site is the highest ever attained.

“Progress has continued to be made also with the work of remedying the pollution of the stream by discharges of trade refuse. Until recently, the Committee have operated only in that portion of the City situated within the watershed of the River Tame down to the confluence of the Hockley Brook, but the City Engineer and Surveyor (Mr. H. J. Manzoni) has now directed that the whole of the City shall be placed under the supervision of the Committee for the purpose of preventing pollution of the streams.

“The negotiations with various manufacturers have been chiefly with the object of obtaining the diversion of liquid trade waste to the sewers, but in one instance tanks are being constructed in which the liquid waste will be settled before being circulated for re-use in the process.”

SEWERAGE.

The City Engineer and Surveyor informs me that new sewers were constructed during the year 1936 with a total mileage of 60.04.

The principal sewerage schemes completed during the year include the following :—

Chinn Brook Sewerage, Section 3. Undertaken to provide for house building developments in the area including Mill Pool Hill Farm and the Firs Estates.

West Heath Sewerage, Section 2. Construction of sewers to provide for development in the Rednal Road area.

Quinton Sewerage, Section 1 Part 1. Enlargement of the valley sewers and construction of branch sewers to provide for house building including Redhall Farm Estate.

The following schemes are now being carried out :—

Sheldon Sewerage. During the year work has been proceeding on this scheme which will provide for the drainage of the Sheldon area and allow of the abolition of numerous dumbwells.

West Heath Sewerage, Section 1. Construction of new valley sewers to provide for the development of the Ivy House and Northfield Estates.

Lea Valley and Kitts Green Sewerage, Section 1. Provision of new sewers to allow of the development of a large area as a Corporation Housing Estate. A number of dumbwells draining existing properties will be abolished.

With regard to the work authorised by the Birmingham Corporation (Rivers Improvement) Act 1929, progress has been made on the improvement of the River Rea between Lawley Street and Moseley Street (Contract 3), and the Contract for the enlargement of the first section of the Rea Main Sewer from Lawley Street to Macdonald Street is approaching completion.

Year ending 31st December, 1936.				F. W. Sewers. Lin. Yds.	S.W. Sewers. Lin. Yds.
Sewers laid by Contract	...	...	...	19,346	11,144
Sewers laid by Direct Labour	...	...	...	5,752	8,091
Sewers Reconstructed	...	...	...	7,131	2,608
Sewers laid by Private Enterprise	...	...	...	22,173	27,660
Sewers laid outside the City	...	...	...	—	1,783
				<hr/> 54,402	<hr/> 51,286
Miles				30.91	29.13
TOTAL				<hr/>	<hr/> 60.04

CLOSET ACCOMMODATION AND SCAVENGING AND REFUSE DISPOSAL.

I am indebted to Mr. Codling, General Manager of the Salvage Department, for the following information :—

PROVISION OF DUSTBINS.

The Corporation possesses legal powers to require the installation of standard dustbins at all properties throughout the city, for the temporary storage of refuse pending its removal. Two types of standard bin are in use, one having a capacity of $3\frac{1}{2}$ cubic feet, and the other $2\frac{1}{3}$ cubic feet.

Dustbins are in general use throughout the entire city, with the exception of a comparatively few old properties where dry ashpits are existing.

A voluntary dustbin hire scheme is in operation, and at December 31st, 1936, 10,430 owners of property had entered the scheme, for the hire of 100,143 dustbins. The number of bins hired represents nearly 40 per cent. of the total number of bins in use throughout the city.

COLLECTION OF HOUSE REFUSE.

House refuse is normally collected at weekly intervals, except in the case of the central city area, where collection is made more frequently where necessary, and in certain cases, at large properties which include hotels, restaurants and cafes, a daily collection of refuse is provided.

The house refuse is largely collected by a fleet of 146 electric vehicles, petrol vehicles and horse-drawn transport also being employed.

During the year the Department purchased 12 new electric and 9 petrol vehicles.

All refuse collection vehicles put into commission for a number of years past have been provided with bodies specially designed to prevent the dissemination of dust during loading operations. The majority of the vehicles are of the side loading type; end loading, moving floor vehicles are also in operation, and it is probable that the use of this type will be extended.

CESSPOOLS AT DECEMBER 31ST, 1936.

There were 413 cesspools in the city receiving regular attention, serving 924 premises. During the year 240 cesspools have been abolished, consequent upon the provision of main sewer facilities, and 22 new cesspools have been constructed. Practically all these cesspools are situated on the outskirts of the city, and schemes for the construction of sewers have been approved by the City Council, which when completed will result in a further reduction in the number of these receptacles.

SANITARY PANS.

The Department is regularly emptying 488 sanitary pans, this number having been practically stationary for some years. None of these pans is attached to premises in the populous areas of the city.

PRIVY MIDDENS.

There are 131 privy middens in the city receiving regular attention, and during the year ended 31st December, 1936, 25 of these were demolished.

DISPOSAL OF REFUSE.

Practically the whole of the house and trade refuse produced in the city is now dealt with by means of separation and incineration at the five salvage and refuse disposal works of the Department. The refuse from the various city markets and abattoirs is also dealt with at the main Works of the Department at Montague Street, where an organic plant is installed for the purpose. The materials dealt with at this plant include condemned meat, fish, offal, vegetable refuse, etc., and the markets and abattoirs refuse treated is converted into fats, feeding meals and fertilisers.

SWIMMING BATHS AND POOLS.

I am informed by Mr. R. Hoggins, Chief Engineer to the Baths Department, that the following baths are maintained by the emptying and refilling process :—

Open-air Baths.

Cannon Hill Park
Victoria Park (Small Heath)

Covered Baths.

Northwood Street
Tiverton Road

With the above exceptions where the emptying and refilling process operates in conjunction with the use of chlorine, the water of the remaining swimming baths, totalling 20, is maintained by mechanical filtration and sterilised by chlorine or chloramine.

In consequence of a Memorandum issued in November, 1935, by the Ministry of Health, drawing the attention of local authorities to the desirability of close supervision of the condition of swimming baths in their areas, an extensive programme of sampling of water from all Corporation baths and of baths at Erdington and Shenley Fields Cottage Homes in the control of the Education Department, also at two schools in the control of the Home Office, and baths owned by a firm in the City for the benefit of employees, is carried out during the year. The results of the bacteriological examination of these samples have shown a good standard in the efficiency of the methods of sterilisation employed and in the care exercised in this direction.

SANITARY INSPECTION.

The work of the general sanitary inspectors has been carried on steadily and vigorously throughout the year, and the following statement indicates the main headings under which visits were paid :—

For systematic house inspection	...	...	...	...	...	...	...	46,626
For housing complaints	...	...	...	...	...	...	...	66,732
For infectious diseases	...	...	...	...	...	...	...	11,919
For inspection of courts	...	...	...	...	...	...	...	3,067
For inspection of manure receptacles	...	...	...	...	...	...	...	1,154
For inspection of drainage (construction or repair)	...	...	...	...	...	...	...	4,165
For drain tests (smoke or water)	...	...	...	...	...	...	...	740
To common lodging houses	...	...	...	...	...	...	...	1,368
To houses let in lodgings	...	...	...	...	...	...	...	8,815
To tents, vans and sheds	...	...	...	...	...	...	...	100
To offensive trade premises	...	...	...	...	...	...	...	377
To workshops and factories, etc.	...	...	...	...	...	...	...	10,190
Under the Rats Order	...	...	...	...	...	...	...	3,356
To ice cream vendors	...	...	...	...	...	...	...	3,817
For miscellaneous complaints	...	...	...	...	...	...	...	10,540
To see owners or agents	...	...	...	...	...	...	...	4,732
For other purposes	...	...	...	...	...	...	...	15,275
Unsuccessful visits	...	...	...	...	...	...	...	11,389
Total visits and re-visits	...	...	...	...	...	...	...	204,362

The total number of dwelling houses inspected was 13,929, of which 3,007 were examined in the course of the systematic house-to-house inspection of selected streets. The remaining houses

inspected were largely those in respect of which a complaint had been received. Of the total of 13,929 examined, 13,039 were found to need repairs of some kind. During the year notices were served for the following work to be done:—

Houses to be disinfected	...	...	...	...	...	...	...	...	2,464
Repairs to houses	...	...	...	...	...	...	...	...	129,160
Houses to be cleansed by owner	...	...	...	...	...	...	...	...	4,259
Houses to be cleansed by tenant	...	...	...	...	...	...	...	...	47
Houses to have better ventilation	...	...	...	...	...	...	...	...	743
Houses to have separate water supply	...	...	...	...	...	...	...	...	476
Houses to be provided with damp course	...	...	...	...	...	...	...	...	389
Water or filth to be removed from cellars	...	...	...	...	...	...	...	...	229
Spouting to be put in order	...	...	...	...	...	...	...	...	4,754
Water closets to be repaired or re-constructed	...	...	...	...	...	...	...	...	7,067
Water closets to be cleansed	...	...	...	...	...	...	...	...	1,834
Additional water closets to be provided	...	...	...	...	...	...	...	...	41
Wash houses or ashplaces to be repaired or limewashed	...	...	...	...	...	...	...	...	3,058
Soilpipes to be repaired or removed	...	...	...	...	...	...	...	...	252
Defective drains	...	...	...	...	...	...	...	...	1,693
Additional drains needed	...	...	...	...	...	...	...	...	451
Sanitary sinks to be provided	...	...	...	...	...	...	...	...	601
Sink bend pipes to be repaired	...	...	...	...	...	...	...	...	980
Yards to be paved or repaired	...	...	...	...	...	...	...	...	1,798
Accumulations of rubbish, manure, etc., to be removed	...	...	...	...	...	...	...	...	293

Internal water supply has been provided to 395 houses and 4 wash houses which previously had to rely on a tap in the yard. This work has been carried out under the provisions of the Birmingham Corporation Act, 1929, under which the Corporation bears half the approved cost of the work. The amount expended in this way during 1936 was £1,142 17s. 7d.

Closely connected with an adequate water supply inside the house is the provision of a suitable and efficient sink. Last year 601 sanitary sinks were provided and 980 sinks were put in order.

In 4,306 cases the notice related to the cleansing, in 1,353 to the painting, and in 743 to the improvement of ventilation of premises.

A large amount of work was done in improving yards and outbuildings. Notices were issued for 41 additional water closets to be provided, for 1,834 closets to be cleansed and made free from obstruction, and for 7,067 to be repaired. Repairs or additions to the drainage were required in 2,360 cases, and the improvement of wash houses or ashplaces in 3,058 instances.

A staff of 6 men is engaged in cleansing some of the worst courts in the City, together with the water closets and ashplaces situated in them, subject to an agreed charge being paid by the owners of the houses. The total number of cleansings effected during the year was 5,783, 79 courts being dealt with weekly. In the course of this work a large number of water closets and drain traps were cleared of obstructions.

The total number of notices served during the year was 15,067, of which 9,840 were preliminary informal notices, and 5,227 were statutory notices.

The summonses taken out during the year were as follows:—

General Nuisances	...	...	...	14
Inside Water Supply	...	...	...	5
Common Lodging House	...	...	...	1
Houses let in lodgings	...	...	...	4
Excessive Smoke	...	...	...	12
Shops Acts	...	...	...	199
Rent Acts	...	...	...	1
Dogs fouling footpaths	...	...	...	12
Disobeying Magistrate's Order	...	...	...	1
				<hr/> 249 <hr/>

RATS AND MICE.

Throughout the year the provisions of the Rats and Mice Destruction Act have been systematically administered, special attention being paid to the matter during National Rat Week which was observed from November 2nd to November 7th.

Rat Week in Birmingham was observed by a general campaign. Some 2,000 circulars were issued to food-stores, warehouses and any premises where rats were suspected, and the occupiers were requested to make a special effort to exterminate rats and to keep a record of their activities.

The following is a summary :—

Premises which were rat-proofed	...	...	...	...	47
Premises where rat catchers were employed	...	...	...	...	66
Premises where baits and traps were used extensively	...	...	...	...	301
Premises which were repaired on account of rats	...	...	...	...	53
Number of rats known to have been destroyed	...	...	...	...	1,967

In addition, special steps were taken by various large industrial undertakings and Corporation Departments. The London, Midland and Scottish Railway Co. take constant action throughout the year. Fellows, Morton and Clayton, Ltd., Canal Carriers, although making a monthly effort, report that they have evidence that their special effort during Rat Week was highly successful. The Birmingham Canal and Navigation Co. also take constant action throughout the year, and report a number of rats found dead after Rat Week. The Great Western Railway Co. report having laid 260 poison baits and finding 14 dead rats. The Markets and Fairs Department laid 715 baits, of which 385 were taken and 12 rats were found dead. The Salvage Department report that in 5 Depots, 3,584 baits were taken and 39 dead rats were found, and also that at 4 Tips, 1,700 baits were laid and 100 dead rats were found. The Public Works Department report that in six districts during seven months previous to Rat Week, 15,159 baits were laid and 79 per cent. of these were taken. During Rat Week, 2,056 baits were laid in sewer man-holes, watercourses, etc., 70 per cent. were taken. Four months' efforts in one Depot where dogs and ferrets were used resulted in 136 rats being killed. The Grand Union Canal Co. used poison baits and 5 rats were found dead during Rat Week.

ERADICATION OF BED BUGS IN HOUSES.

The following information relating to bug-infested houses and belongings is set out in the form desired by the Ministry of Health :—

1. Number of Council houses found to be infested—912.
2. Other houses found to be infested—1,714.
3. Council houses disinfested—912.
4. Other houses disinfested by Local Authority—80.
5. The method of freeing infested houses from bed bugs is by the removal of architrave moulds and skirting boards and well spraying the rooms with an insecticide.
6. The disinfestation of houses owned by the Local Authority and those indicated under item No. 4 were carried out by the Local Authority.
7. The methods employed for ensuring that the belongings of tenants are free from vermin before removal to Council houses, is by means of hydro-cyanic gas disinfestation. The belongings are collected in specially constructed vans and taken to the Bacchus Road Disinfestation Station where they are treated with the gas and returned to the new address on the Corporation estates. The bedding and soft goods, etc., are not treated by gas but are passed through the steam disinfector.

SLUM CLEARANCE.

Disinfestation of Household Goods.

At Bacchus Road Disinfestation Station there was provided in May, 1936, a hydrocyanic acid gas plant for the disinfestation of household goods prior to their removal to a Corporation house. The plant is capable of dealing with the contents of 30 houses per week, but is at present dealing with the contents of 20 houses per week. Soft goods, such as pillows, mattresses, etc., continue to be dealt with by steam disinfestation.

A Bathing-Out Block has also been provided in order to allow the tenants of these houses or other persons to attend in order that they may be cleansed, their clothing being disinfested at the same time.

Up to December 31st, 1936, the number of sets of furniture disinfested was 659.

FACTORIES AND WORKSHOPS.

The visits paid under the Factory and Workshops Acts numbered 10,190. As a result of these visits notices were served as follows:—

Want of cleanliness	...	...	...	...	...	...	...	...	...	...	439
Want of ventilation	...	...	...	...	...	...	...	...	...	...	57
Overcrowding	...	...	...	...	...	...	...	...	...	...	2
Want of drainage of floors	...	...	...	...	...	...	...	...	...	...	1
Other nuisances	...	...	...	...	...	...	...	...	...	...	355
Insufficient sanitary accommodation	...	...	...	...	...	...	...	...	...	...	27
Unsuitable or defective sanitary accommodation	...	...	...	...	...	...	...	...	...	...	741
Sanitary accommodation not separate for the sexes	...	...	...	...	...	...	...	...	...	...	5
Illegal occupation of underground bakehouse	...	...	...	...	...	...	...	...	...	...	0

Arrangements are in force co-ordinating the work of the Public Health Department in some directions with that of the office of H.M. Superintending Inspector of Factories for the Midland area. This has related chiefly to insufficient or defective sanitary accommodation, or to the investigation of nuisances arising in factories and affecting neighbouring premises. This form of co-operation has continued to prove of great value, preventing overlapping, duplication of action or on the other hand failure to take action, and at the same time removing risks of misunderstanding between two public departments engaged on closely allied work.

The number of workshops on the register is 2,427 and the visits for inspection paid to them numbered 3,408. In addition to these visits 2,947 were made to factories, 81 to workplaces, 2,888 to food preparation premises and 866 to out-workers premises.

SMOKE ABATEMENT.

Legislation Governing Smoke Emissions.

The Birmingham Corporation Consolidation Act, 1883, Section 30, and the Birmingham Corporation Act, 1922, Section 79, together with the City Bye-laws under Section 2 of the Public Health (Smoke Abatement) Act, 1926, are the principal enactments used in dealing with excessive smoke emissions.

Industrial Smoke:—Boiler Plants.

These may be grouped under five headings and consist of Water Tube, Lancashire, Cornish, Economic and Vertical Boilers. Observations show that where mechanical stokers have been fitted to these plants, the pollution of the atmosphere is considerably reduced, and in most cases continual visits to the works and the service of notices have not been necessary.

Several new boiler plants have been erected during the year and in each case where such mechanical stokers have been fitted no complaints have been received.

Industrial Smoke:—Metallurgical Furnaces.

These may also be grouped as follows:—Annealing, blueing, reheating, hardening and sheet mill furnaces. The term "muffle furnace" is used locally to cover any of the above metallurgical furnaces. The processes are varied and in most cases coal is the fuel used. The emission of dense black smoke from the chimneys serving these types of furnaces contributes the major portion of the industrial pollution, and it is to this class of chimney that most observations and attention is given.

During the year one firm has introduced pulverised fuel for a series of large reheating billet furnaces and by taking special designs in baffling, the furnaces are working with no smoke or dust emissions. Another firm situated in a residential area has reconstructed their annealing furnaces with special preheated air supply and furnace bars, and is now working with a minimum of smoke emissions. Certain of the Birmingham manufacturers can claim to be doing pioneer work towards the reduction of smoke from metallurgical furnaces.

Grit Emissions.

The emission of grit from industrial steam generating units is on the increase and all types of boilers are involved. In most cases it is from boilers where mechanical means have been employed to increase the air supply and accelerate combustion such as forced and induced draught apparatus, and unless special steps are taken the particles of the low grade fuel are carried up the chimney by the velocity of the flue gases and pass into the atmosphere in the form of grit and gritty particles.

Domestic Smoke.

The increased use of gas and electricity for heating and cooking, together with the public demand for the modern type of firegrate which is designed on engineering and labour saving principles by the manufacturers of to-day, are all factors helping to reduce domestic smoke pollution of the atmosphere. An increasingly important factor lies in the replacement of a high house density per acre in congested areas by a low density on the Municipal estates. A large part of the remedy for domestic smoke lies in the direction of better combustion in the firegrate.

Arrangements made with the City Surveyor's Department, whereby plans of new industrial buildings and chimney stacks deposited with them for approval are passed on to the Public Health Department for observations, are proving a valuable contribution towards smoke abatement. This enables adjustments in type of plant or in height of chimneys to be effected where necessary, by interview with the owners or depositors from the standpoint of smoke abatement before the fault has been committed.

Arrangements are in force whereby outside contractors doing Corporation work shall use anthracite or other smokeless fuel.

The following table sets out particulars of observations on chimneys other than those of private dwelling houses.

	1936	1935	1934	1933	1932
Total number of observations	5,537	5,096	5,127	5,784	5,135
<i>Reports to Public Health Committee on Excessive Smoke Emissions.</i>					
Black Smoke from Boiler Plants	69	104	71	88	77
" " " boilers and furnaces	13	12	8	12	8
" " " metallurgical furnaces	16	28	22	24	29
Excessive Grit Emissions	3	3	1	—	2
Excessive emissions other than black smoke	37	—	—	—	—
Total number of excessive emissions	138	147	102	124	116
Number of Prosecutions	12	14	4	4	6
Number of Convictions	12	14	4	4	6

Thirty-seven Preliminary Notices and one Statutory Notice have been served under the Public Health Act, 1875 and the Public Health (Smoke Abatement) Act 1926.

OFFENSIVE TRADES.

Premises registered for the carrying on of offensive trades in the City are classified as follows :

Tripe boiler	...	...	...	...	35
Rag and bone dealer	...	...	...	...	22
Blood boiler	...	...	...	...	1
Bone boiler	...	...	...	...	1
Fellmonger	...	...	...	...	2
Tanner	...	...	...	...	1
Soap boiler	...	...	...	...	2
Fat extractor	...	...	...	...	1
Gut scraper	...	...	...	...	3

One rag, bone and skin dealer and one tripe boiler have been added to the register during 1936, but no premises were removed from this register.

Apart from requests for the remedying of certain minor defects having relation to the cleanliness of the premises, which were readily complied with, no difficulties presented themselves in general in regard to the supervision of these premises. In one particular works, in respect of which serious and repeated complaints were received, the complaints were found to be justified. Action in regard to these was still proceeding at the end of the year.

COMMON LODGING HOUSES.

At the end of the year there were 24 registered Common Lodging Houses in the City, affording accommodation for 1,784 males and 71 females.

It is satisfactory to note that the unusually high standard of cleanliness and sanitation established in these premises in Birmingham continues to be maintained.

In one instance it was found necessary to resort to legal proceedings to remedy a contravention of the regulations governing the management of these houses.

No. of houses on register (for males only)	...	...	...	...	...	22
No. of houses on register (for females only)	...	...	...	...	...	2
No of lodgers allowed	...	...	...	...	...	1,855
No. of day visits	...	...	...	...	...	1,097
No. of night visits	...	...	...	...	...	104
No. of Special Visits	...	...	...	...	...	153
Defects found	...	...	...	...	...	528
No. of summonses	...	...	...	...	...	1

HOUSES LET IN LODGINGS.

At the end of the year there were 512 houses let in lodgings on the Register, containing 3,253 rooms.

They were let as follows :—

No. of rooms let as single rooms	...	...	...	...	1,166
No. of lets of two or more rooms together	...	...	...	...	816
Certified accommodation	...	...	...	...	7,627 persons

The visits and re-visits paid during the year numbered 7,151, an average of 14 per house. Notices were served for the following matters :—

Repairs ordered	...	...	...	...	...	...	...	4,109
Overcrowding	...	...	...	...	...	...	...	12
Cleansing required	...	...	...	...	...	...	...	544
Provision for cooking	...	...	...	...	...	...	...	206
Provision for food storage	...	...	...	...	...	...	...	475
Fire extinguishers needed	...	...	...	...	...	...	...	348
Lighting on stairs	...	...	...	...	...	...	...	134
Water supply	...	...	...	...	...	...	...	44
Other defects	...	...	...	...	...	...	...	193
Summonses issued for non-compliance with Bye-laws	...	...	...	...	...	...	...	4

The standard of accommodation continues to be of very poor quality in a large number of houses let in lodgings, and the evil of subletting by persons unable or unwilling to live up to their responsibilities as landlords continues to be a serious factor in the housing difficulties of this unfortunate section of the community. A certain number of the worst houses have been represented, and as alternative housing accommodation becomes available some improvement is likely to follow.

TENTS, VANS, AND SHEDS.

The number of visits paid to these by the inspectors was 100. In a number of cases particulars were referred to the City Surveyor with a view to action under the Birmingham Corporation (General Powers) Act, 1929.

CANAL BOATS.

During the year 1936 the number of boats inspected on the canals within the City area was 1,162.

The 1,162 boats inspected were registered for the accommodation of 3,409 persons, and when inspected were found to be carrying 1,387 men, 787 women, and 682 children, a total of 2,856 persons, represented in terms of adults as 2,515.

The following table shows the number of boats inspected during the last five years, giving the number of persons whom the boats were registered to accommodate and the actual number of occupants at the time of inspection :—

Year.	No. of boats inspected.	Registered to carry (adults).	Actually occupied by :			Total occupying	Equivalent to adults.
			Men.	Women.	Children.		
1932	1,147	3,558	1,498	766	655	2,919	2,591.5
1933	1,147	3,520	1,467	824	725	3,016	2,653.5
1934	1,143	3,448	1,410	817	711	2,938	2,582.5
1935	1,107	3,332.5	1,376	717	677	2,770	2,431.5
1936	1,162	3,409	1,387	787	682	2,856	2,515

Of the 1,162 boats inspected during the year it was found that 1,058 or 91.1 per cent. were in good condition and conforming with the Acts and Regulations, while in 104, or 8.9 per cent. of the total various contraventions were found. These are classified thus :—

Boats with one contravention each	...	33	making total contraventions		...	...	33
Boats with two contraventions each	...	34	making total contraventions		...	...	68
Boats with three contraventions each	...	28	making total contraventions		...	...	84
Boats with four contraventions each	...	9	making total contraventions		...	...	36
		—					—
Totals		104					221
		—					—

Complaint Notes were duly served on the owners in all cases, 104 Complaint Notes being issued during 1936, and 42 were brought forward from 1935. 94 Notices were complied with during the year.

The following table shows the number and character of contraventions found and remedied during the year :—

Contraventions referring to :—	Outstanding and brought forward from 1935.	Found during 1936.	Remedied during 1936.	Carried forward to 1937
Cabins requiring repairs	16	41	53	4
Cabins requiring painting	16	50	51	15
Cabins leaking	3	14	16	1
Requiring lettering	2	55	39	18
Registration	5	29	25	9
Not producing certificate	—	15	11	4
Dirty cabins	—	6	4	2
Overcrowding	—	6	4	2
Separation of Sexes	—	3	2	1
Water vessels	—	—	—	—
No pumps	—	1	1	—
Ventilation	—	1	—	1
No certificate identifying owner of boat	—	—	—	—
Cabins not habitable	—	—	—	—
	42	221	206	57

It has not been necessary during the year to take any Court proceedings under the Canal Boat Acts or Regulations.

INFECTIOUS DISEASES.

One case of Diphtheria occurred during the year, the patient being a girl aged 16. The case was removed to hospital in this city and the boat of which she was an inmate taken out of commission until bed clothing, wearing apparel and cabins had been disinfected.

REGISTRATION OF BOATS.

There was a net increase of 23 boats registered at Birmingham during the year 1936, thus bringing the total up to 612.

The 612 boats on the register are classified as follows. It will be noticed that steam boats continue to remain at three :—

Ordinary boats	507
Motor boats	102
Steam boats	3
	<hr/>
	612
	<hr/>

SUPERVISION OF SHOPS.

There are some 27,000 shops in the City area and four inspectors are employed to carry out the work of inspection in relation to the under-mentioned Acts :—

Shops Acts, 1912-1934.

Butchers' Closing Order, 1921.

Hairdressers' and Barbers' Shops (Sunday Closing) Act, 1930.

Shops (Sunday Trading Restriction) Act, 1936.

Retail Meat Dealers' Shops (Sunday Closing) Act, 1936.

The work of the inspectors is summarised as follows:—

Number of visits paid—							
General Inspection visits	...	...	...	...	...	...	12,785
General Inspection revisits	...	...	...	...	...	...	6,055
Special visits regarding—							
Night closing of shops (1928 Act)	...	...	...	...	...	...	518
Half-day closing of shops (1912 Act)	...	...	...	...	...	...	497
Appointments re 1934 Shops Act	...	...	...	...	...	...	345
Number of streets patrolled by day (1912 Act)	...	...	...	...	...	...	1,177
Number of streets patrolled by night (1928 Act)	...	...	...	...	...	...	1,503
Sunday patrol (1930 Act)	...	...	...	...	...	...	283
Patrol (Butchers' Closing Order 1921)	...	...	...	...	...	...	514
							23,677

Towards the end of the year, sixteen visits were also paid to lending libraries to explain problems arising out of the Shops Act, 1936, due to come into force on 1st January, 1937.

Offences reported, etc. :—

Early Closing Notices not exhibited (1912 Act)	...	...	...	...	...	...	1,777
Assistants Weekly Half-Holiday Notice not exhibited (1912 Act)	...	...	...	...	...	...	1,118
Young Persons Notice not exhibited, Form H (1934 Act)	...	...	...	...	...	...	823
Young Persons Notice not exhibited, Form J (1934 Act)	...	...	...	...	...	...	58
Young Persons Notice not exhibited, Form F (1934 Act)	...	...	...	...	...	...	848
Not providing seats for Shop Assistants (1934 Act)	...	...	...	...	...	...	104
Not exhibiting Form K (seating accommodation) (1934 Act)	...	...	...	...	...	...	900
Number of shops where overtime is carried on, Form G (1934 Act)	...	...	...	...	...	...	4
Exempted Trades Notices not exhibited	...	...	...	...	...	...	1,023
Not closing to time (evenings) 1928 Act	...	...	...	...	...	...	302
Not closing to time (half-day) 1912 Act	...	...	...	...	...	...	133
Opening on Sundays (Hairdressers)	...	...	...	...	...	...	3
To provide W.C. accommodation (1934 Act)	...	...	...	...	...	...	42
To provide suitable ventilation	...	...	...	...	...	...	5
To provide suitable heating	...	...	...	...	...	...	1
To provide accommodation for meals	...	...	...	...	...	...	36
To provide washing facilities	...	...	...	...	...	...	18
Mess Rooms to be cleansed	...	...	...	...	...	...	41
Nuisances found	...	...	...	...	...	...	155
Summonses issued	...	...	...	...	...	...	204
Summonses withdrawn	...	...	...	...	...	...	2
Summonses not served (occupiers left address)	...	...	...	...	...	...	5

Proceedings were taken against 22 butchers for keeping their premises open after the hours permitted in the Closing Order (1921), and fines up to £10 imposed.

Many shopkeepers were prosecuted for the sale of prohibited articles at a time when the premises were legally open for the sale of exempted goods.

Proceedings under the 1928 Act were taken in 166 cases when fines ranging from 10/- to £2 were imposed.

There were 8 prosecutions under the 1912 Act for keeping shops open on the specified weekly half holiday, and for employing assistants on their prescribed half holiday. Fines of £1 and 10/- were imposed in two cases, while in six the defendants paid costs.

Proceedings were also taken against one hairdresser for contravention of the Hairdressers and Barbers Shops (Sunday Closing) Act, 1930, and the defendant was fined £1.

MORTUARY—SUMMER LANE.

This building, provided by the generosity of Mr. and Mrs. T. Sidney Walker in 1931, and handed over to the Public Health and Maternity and Child Welfare Committee in 1934, has continued to serve the Summer Lane area as a means of providing a resting place to which the dead could be brought and remain until the time for burial, instead of being kept in small houses with living relatives. During the year 1936 the building was used for the temporary reception of the dead on 54 occasions.

IV. HOUSING.

NEW HOUSES.

Data received from the City Engineer and Surveyor show that 2,285 houses were built by the Municipality and 6,926 by private enterprise during 1936. The houses built by the Corporation are for the working class, while those built privately have generally been of a larger type. The houses built year by year since 1920 are shown in the subjoined statement.

			No. of houses erected by private enterprise.	Corporation houses.	Total.
1920	.....	.....	244	553	797
1921	.....	.....	426	970	1,396
1922	.....	.....	382	810	1,192
1923	.....	.....	556	1,621	2,177
1924	.....	.....	1,201	1,992	3,193
1925	.....	.....	1,774	3,215	4,989
1926	.....	.....	1,775	5,159	6,934
1927	.....	.....	2,445	4,007	6,452
1928	.....	.....	1,487	3,505	4,992
1929	.....	.....	2,456	4,359	6,815
1930	.....	.....	1,738	6,715	8,453
1931	.....	.....	1,983	3,919	5,902
1932	.....	.....	2,159	1,737	3,896
1933	.....	.....	3,028	2,029	5,057
1934	.....	.....	4,226	837	5,063
1935	.....	.....	6,265	985	7,250
1936	.....	.....	6,926	2,285	9,211
Total			39,071	44,698	83,769

The wards in which new houses have been built in 1936 are indicated below:—

	Ward.	Houses erected by private enterprise.	Corporation Houses.	Total.
Central Wards.	St. Paul's	—	—	—
	St. Mary's	—	—	—
	Duddeston and Nechells	2	—	2
	St. Bartholomew's	—	—	—
	St. Martin's and Deritend	1	—	1
	Market Hall	2	—	2
	Ladywood	—	—	—
Total Central Wards		5	—	5
Middle Ring.	Lozells	—	—	—
	Aston	—	—	—
	Washwood Heath	239	—	239
	Saltley	8	—	8
	Small Heath	—	—	—
	Sparkbrook	4	—	4
	Balsall Heath	2	—	2
	Edgbaston	102	—	102
	Rotton Park	—	—	—
	All Saints'	—	—	—
Total Middle Ring		355	—	355

Ward.					Houses erected by private enterprise.	Corporation Houses.	Total.
Outer Ring.	{	Soho .....	.....	.....	15	94	109
		Sandwell .....	.....	.....	73	—	73
		Handsworth .....	.....	.....	178	—	178
		Perry Barr .....	.....	.....	2,170	315	2,485
		Erdington .....	.....	.....	69	58	127
		Gravelly Hill .....	.....	.....	99	40	139
		Bromford .....	.....	.....	218	4	222
		Stechford .....	.....	.....	530	510	1,040
		Yardley .....	.....	.....	350	—	350
		Acock's Green .....	.....	.....	33	—	33
		Hall Green .....	.....	.....	449	332	781
		Sparkhill .....	.....	.....	46	100	146
		Moseley and King's Heath .....	.....	.....	321	—	321
		Selly Oak .....	.....	.....	351	22	373
		King's Norton .....	.....	.....	237	272	509
		Northfield .....	.....	.....	808	147	955
		Harborne .....	.....	.....	619	391	1,010
Total Outer Ring					6,566	2,285	8,851
Grand Total					6,926	2,285	9,211

The following statement shows the number of new houses built in the three groups of wards since 1920:—

Groups of Wards.					Houses erected By private enterprise.	Corporation.	Total.
Central Wards .....	.....	.....	.....	.....	42	413	455
Middle Ring .....	.....	.....	.....	.....	3,249	5,960	9,209
Outer Ring .....	.....	.....	.....	.....	35,780	38,325	74,105
City .....	.....	.....	.....	.....	39,071	44,698	83,769

No. OF EXISTING HOUSES.

From a return prepared by the Rates Department of the City Treasurer's Department, it appears that on April 1st, 1937, there were 255,865 dwelling houses and 18,156 shops with dwelling houses attached in the City. Some idea of the relative size of the dwelling houses may be gathered from the assessments for rating purposes which were as follows:—

Assessment.	No. of dwelling houses.
Up to and including £5	4,442
Over £5 and up to £10	116,024
Over £10 and up to £15	60,644
Over £15 and up to £20	40,763
Over £20 and up to £50	30,615
Over £50 and up to £100	3,074
Over £100	303

ACTION IN RESPECT OF INDIVIDUAL DWELLING HOUSES.

For detailed information as to the nature of the defects disclosed by inspection, reference should be made to page 43. The statement below, set out in the form required by the Ministry of Health, is in respect of the number of houses dealt with under the different statutory provisions relating to dwelling houses.

1. INSPECTION OF DWELLING-HOUSES DURING THE YEAR :—

(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	13,929
(b) Number of inspections made for the purpose	120,828
(2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidation Regulations, 1925	3,007
(b) Number of inspections made for the purpose	46,626
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	2,981
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	13,039

2. REMEDY OF DEFECTS DURING THE YEAR WITHOUT SERVICE OF FORMAL NOTICES :—

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	9,405
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3. ACTION UNDER STATUTORY POWERS DURING THE YEAR :—

A.—Proceedings under sections 17, 18 and 23 of the Housing Act, 1930 :

(1) Number of dwelling-houses in respect of which notices were served requiring repairs	1,567
(2) Number of dwelling-houses which were rendered fit after service of formal notices :—	
(a) By owners	1,239
(b) By local authority in default of owners	110

B.—Proceedings under Public Health Acts :—

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	2,826
(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—	
(a) By owners	2,952
(b) By local authority in default of owners	23

C.—Proceedings under sections 19 and 21 of the Housing Act, 1930 :

(1) Number of dwelling-houses in respect of which Demolition Orders were made	328
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders	312
(3) Number of dwelling-houses in respect of which official Representations were made	245
(4) Number of dwelling-houses in respect of which undertakings under Sec. 19 (2) were accepted :—	
(a) Not to use in future for human habitation	40
(b) To carry out works to render fit for human habitation	89
(5) Number of dwelling-houses rendered fit for human habitation in pursuance of undertakings	29

D.—Proceedings under section 20 of the Housing Act, 1930 :—

(1) Number of parts of building or underground rooms in respect of which Closing Orders were made	18
(2) Number of parts of buildings or underground rooms in respect of which Closing Orders were determined, the part of building or room having been rendered fit	—
(3) Number of parts of buildings or separate tenements in respect of which official Representations were made	12

4.—HOUSING ACT, 1935—OVERCROWDING.

A.—(1) Number of houses estimated to be overcrowded at the end of the year	8,373
(2) Number of persons dwelling therein	52,282

B.—Number of new cases of overcrowding reported during the year	267
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C.—(1) Number of cases of overcrowding known to have been relieved during the year	284
(2) Number of persons concerned in such cases	1,781

D.—Particulars of any cases in which dwelling-houses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding	No figures available.
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ACTION IN RESPECT OF CLEARANCE AREAS.

The following table shows briefly, as at December 31st, 1936, the position with regard to Orders made in respect of Clearance Areas.

TITLE OF ORDER.	Date of Representation	Date of making of Order.	Date of Confirmation.	Number of houses in Clearance Area.
Montague Street C. O., No. 1	9/5/35	4/6/35	3/2/36	20
Montague Street C. O., No. 2	9/5/35	4/6/35	4/2/36	12
Derby Street C. O., No. 1	9/5/35	4/6/35	3/2/36	6
Derby Street C. O., No. 2	9/5/35	4/6/35	4/2/36	4
Great Barr Street C. O., No. 1	9/5/35	4/6/35	3/2/36	8
Great Barr Street C. O., No. 2	9/5/35	4/6/35	3/2/36	4
Great Barr Street C. O., No. 3	9/5/35	4/6/35	3/2/36	11
Great Barr Street C. O., No. 4	9/5/35	4/6/35	4/2/36	29
Belmont Passage C. O.	9/5/35	4/6/35	4/2/36	40
Lawley Street C. O.	9/5/35	4/6/35	4/2/36	9
Fawdry Street C. O.	9/5/35	4/6/35	4/2/36	16
Little Barr Street C. O.	9/5/35	4/6/35	3/2/36	18
Palmer Street C. O.	9/5/35	4/6/35	4/2/36	64
Barr Street, Hockley C. O.	9/5/35	4/6/35	3/2/36	8
Cecil Street C. O., No. 1	11/5/35	10/12/35	2/7/36	30
Carver Street C. O., No. 1	20/5/35	23/7/35	14/4/36	18
Carver Street C. O., No. 2	20/5/35	23/7/35	14/4/36	36
Pope Street C. O., No. 1	20/5/35	23/7/35	14/4/36	72
Pope Street C. O., No. 2	20/5/35	23/7/35	14/4/36	8
Warstone Lane C. O., No. 1	20/5/35	23/7/35	14/4/36	9
Warstone Lane C. O., No. 2	20/5/35	23/7/35	14/4/36	11
Warstone Lane C. O., No. 3	20/5/35	23/7/35	14/4/36	137
New Bartholomew Street C. O., No. 1	23/5/35	23/7/35	14/4/36	7
New Bartholomew Street C. O., No. 2	23/5/35	23/7/35	14/4/36	11
Ormond Street C. O.	23/5/35	23/7/35	14/4/36	46
Moorsom Street C. O.	23/5/35	23/7/35	14/4/36	32
Bath Street C. O.	16/7/35	10/12/35	2/7/36	39
Shadwell Street C. O.	16/7/35	10/12/35	2/7/36	6
Nelson Street C. O.	12/11/35	10/12/35	2/7/36	28
Sherbourne Road C. O.	12/11/35	10/12/35	2/7/36	11
Cheapside C. O.	12/11/35	10/12/35	2/7/36	137
Cecil Street C. O., No. 2	12/11/35	10/12/35	2/7/36	10
Moseley Street C. O.	12/11/35	7/4/36	Confirmation	18
Park Road, Hockley C. O.	28/11/35	4/2/36	Orders not	6
Regent Place, St. Paul's C. O.	28/11/35	4/2/36	received	8
Harding Street C. O.	28/11/35	4/2/36	during 1936	9
Charles Henry Street C. O.	21/12/35	—	"	50
Lower Darwin Street C. O.	21/12/35	—	"	38
Lombard Street C. O.	21/12/35	—	"	9
Moseley Road C. O.	2/1/36	7/4/36	"	14
Warwick Street C. O., No. 1	2/1/36	7/4/36	"	83
Warwick Street C. O., No. 2	2/1/36	7/4/36	"	27
Hunters Vale C. P. O., 1936	18/2/36	7/4/36	"	4
High Street, Deritend	15/12/36	Considered	"	18
Court 7, Digbeth	15/12/36	during 1937	"	17
Crocketts Road, Handsworth	15/12/36	"	"	12
Bordesley Street	15/12/36	"	"	29
Little Ann Street, No. 1	15/12/36	"	"	4
Little Ann Street, No. 2	15/12/36	"	"	4
Floodgate Street	15/12/36	"	"	6
Oxford Street, No. 1	15/12/36	"	"	10
Oxford Street, No. 2	15/12/36	"	"	9
Barn Street, No. 1	15/12/36	"	"	30
Barn Street, No. 2	15/12/36	"	"	23
Barn Street, No. 3	15/12/36	"	"	31
Barn Street, No. 4	15/12/36	"	"	21
Cardigan Street, No. 1	15/12/36	"	"	94
Cardigan Street, No. 2	15/12/36	"	"	28
Cardigan Street, No. 3	15/12/36	"	"	6
Cardigan Street, No. 4	15/12/36	"	"	26
Pickford Street, No. 1	15/12/36	"	"	24
Pickford Street, No. 2	15/12/36	"	"	27
Pickford Street, No. 3	15/12/36	"	"	21
TOTAL during 1936 : 24 Areas		4 Orders		568
TOTAL to December 31st, 1935 : 101 Areas		98 Orders		2,965
GRAND TOTAL to December 31st, 1936 : 125 Areas		102 Orders		3,533

As at the 31st December, official representations in respect of 6,035 houses had been made since the passing of the Housing Act 1930, 2,502 of these being in respect of individual houses or blocks of houses not large enough to merit area action. Rehousing operations are now proceeding normally and except in a few isolated instances the houses dealt with have been vacated without recourse to action in the Courts for possession.

No particular difficulties have been encountered in respect of areas affected by Clearance Orders. Owing to increasing familiarity on the part of property owners with the procedure of Ministry Inquiries, and to a more adequate appreciation of the issues to be determined at those Inquiries, the actual length of hearing has been considerably shortened and there is an increasing tendency to accept the evidence submitted by the Authority as correct in fact, although efforts are continually made to secure exclusion from Orders upon an offer by the owners to carry out a scheme of works. In some other instances owners have suggested that even though the houses affected might be unsuitable for occupation as dwellings they might be retained in use for storage purposes, without detriment to the City as a whole, or to the occupants of other houses in the immediate neighbourhood unaffected by Orders under the Housing Acts.

In general, clearance operations have been in respect of properties situated in a ring from one half to one mile from the City centre, but consequent on the powers made available by Section 13 of the Housing Act 1935, a full survey of a considerable area was carried through and it was found that clearance would be necessary on such a scale as to indicate that redevelopment within the meaning of the Act would probably be the most desirable method of dealing with the conditions in the area as a whole. This area is substantial in extent and an adequate scheme of redevelopment would have a marked effect on the planning and development of the City generally. In order that any such scheme, which would necessarily involve very considerable financial commitments, might be in the most desirable form, a very full examination of the possible alternative methods of treatment is now being carried out by the City Engineer and Surveyor and it is hoped that at some time during 1937 it may be possible to delineate the area and to indicate on broad lines the method by which redevelopment should subsequently be effected.

The Survey carried out in pursuance of Section 1 (1) of the Housing Act, 1935 was utilised as a means of ascertaining certain Housing information.

It was found that there were 38,773 houses either truly back-to-back or of a back-to-back type. Houses without an internal water supply within the structure of the actual dwelling house were found to be 13,650 in number, whilst 51,794 were found to be without separate closet accommodation.

The Housing Act 1936, which received the Royal Assent on the 31st July, 1936, and which will come into force on the 1st January, 1937, does not appear to contain any provisions which will disturb the continuity of clearance or redevelopment operations.

In cases where owners may not wish to incur expenditure on account of the suspected imminence of schemes leading to demolition, provision is made in Section 55 of the Act for a certificate of indemnity provided that an approved scheme of works of reconstruction and improvement is carried out to the satisfaction of the Authority. It is of interest to note that no formal applications have been received during the year.

In the Annual Report for 1935, mention was made of the establishment of a Standing Joint Housing Conference under the chairmanship of the Lord Mayor for the purpose of facilitating and expediting efforts in connection with housing matters, the Conference comprising members of the Committees mainly concerned, viz.: the Finance Committee, Public Works and Town Planning Committee, Estates Committee, and the Public Health and Maternity and Child Welfare Committee. As a result of the deliberations and recommendations of this Conference, the City Council at their meeting in April passed the following resolution:—"That until the necessary 2,636 houses can be provided to meet the needs arising out of the Orders for demolition already made in the Housing Acts, it is undesirable to represent further areas under Part I of the Housing Act 1930."

From April onwards rapid strides were made in rehousing families from clearance areas. The City Engineer and Surveyor, who had been in constant touch with representatives of the building trades, was able to estimate that an annual production of at least 2,000 houses could be maintained for the ensuing twelve months. In October I reported to the Authority that if the present rate of house building were to be maintained, the number of families awaiting other accommodation could

be rehoused before the date of the final operation of any Orders made subsequent to the date of my report. The Housing Conference thereupon advised the General Purposes Committee of this and other aspects of the situation and at the end of the year a draft resolution was placed on the agenda for the Council meeting to be held on the 5th January, 1937, as follows:—"Resolved that upon the report of the Standing Joint Housing Conference now submitted, the resolution passed on the 7th April, 1936, be and it is hereby rescinded."

At the time when clearance operations were suspended, formal orders had not been made in respect of three areas dealt with in the Annual Report for 1935. In anticipation of the resumption of clearance operations, further representations were forwarded to the Local Authority in December, and by resolution, in fact passed on January 5th, 1937, the City Council authorised the formal making of orders in respect of a total of 27 clearance areas, comprising 598 houses. Although clearance on a large scale could not be effected during the year, I found it necessary to submit official representations in respect of 245 individual houses found at the time of representation to be in such a state that action could not any longer be suspended. It seems likely that a rate of representation of 2,000 houses per annum will be capable of being maintained with a reasonable expectation of securing the necessary rehousing accommodation as and when required, and it is to be hoped that conditions in the building trade will allow for the building of houses additional to these in order to meet the need for other accommodation which will be rendered necessary by operations for the abatement of overcrowding.

OVERCROWDING.

The survey rendered necessary by the provisions of Section 1 of the Housing Act, 1935, was completed early during the year, and on March 30th a special report was issued dealing in extenso with the results of that survey so far as they related to the extent of overcrowding.

Of 222,647 families surveyed, 8,390, or 3.77 per cent. of the whole, were overcrowded on the standards of the Housing Acts. The majority of cases of overcrowding, as might be expected, were found in the central wards. The percentage of overcrowding varies from 7.5 to 10.3 in the central wards, 1.3 to 4.4 in the middle ring and 0.6 to 4.5 in the outer ring. It is of interest to note that 3.75 of the families in Corporation houses were recorded as overcrowded.

As required by the Housing Act, 1935, rooms normally used as living-rooms were reckoned as being rooms available for sleeping purposes. In accordance with the special request of the Public Health Committee, the available data were examined to obtain as close an estimate as was practicable of the overcrowding in the City had the living-room been excluded from consideration, and it was found that on this hypothetical standard some 30,212 families, or 13.5 per cent. of the whole, were overcrowded.

This report, after approval by the Public Health and Maternity and Child Welfare Committee, was submitted to the City Council together with reports from the Estates Committee in relation to the number of new houses required, and the Public Works and Town Planning Committee in relation to the proposals for the provision of new houses.

The City Council approved and adopted the various reports and accepted the recommendation that, as the first step in the programme towards the provision of the necessary houses, 1,000—1,500 four-bedroomed houses should be erected for accommodating overcrowded families of from 7 to 9 persons. An additional provision was made for later consideration of the re-housing of families of more than nine persons. The Council also requested the Minister to fix January 1st, 1938, as the Appointed Day under the terms of Section 3 of the Act.

Amongst the 284 cases of overcrowding mentioned on page 53 as having been dealt with during the year were a strictly limited number of cases dealt with on the grounds of extreme urgency, under arrangements made by the Estates Committee with the approval of the Standing Joint Housing Conference. In addition, a number of tuberculosis cases were referred to the Estates Department on account of the patient's ill-health, but these cases were not all in respect of persons living in overcrowded conditions. I would like to record my appreciation of the help given by the Estates Department in connection with the above items, particularly in view of the fact that no houses were built by the Authority during the year under the Housing Acts for purposes other than slum clearance.

V. INSPECTION AND SUPERVISION OF FOOD.

FOOD PREMISES.

Inspections of small retail food premises have been carried out by the sanitary inspectors under the provisions of Section 72 of the Public Health Act, 1925. Section 54 of the Birmingham Corporation Act, 1935, requiring the registration as "eating houses" of premises used mainly or substantially for the provision of food to members of the public for consumption on the premises became effective as from the 1st January, 1936, and during the year 600 premises were so registered. In 10 cases certain requirements were necessary before applications for registration could be recommended to the Public Health Committee for approval, but no difficulty was experienced in having these fulfilled. Particular attention has been paid to the provision of hoods and flues to gas cooking stoves where practicable, and to the provision of facilities for personal ablutions in juxtaposition to sanitary accommodation for the use of kitchen staffs.

ICE-CREAM.

The registration of premises used for the manufacture or sale of ice-cream and of persons trading as manufacturers or vendors of or merchants or dealers in this commodity was required by Section 54 of the Birmingham Corporation Act, 1935, as from the 1st January, 1936, and the following table gives details of the registrations effected during the year. The responsibility for inspecting ice-cream premises has hitherto rested with the sanitary inspectors, but it has lately been found expedient to transfer this duty to the dairy inspectors.

Registration of premises for the manufacture and sale of ice-cream	...	...	...	...	1,301
Registration of premises for the sale of ice-cream	...	...	...	...	377
Registration of premises for the manufacture of ice-cream	...	...	...	...	4
Transfer registration of premises for the manufacture and sale of ice-cream	...	...	...	...	16
Transfer registration of premises for the sale of ice-cream	...	...	...	...	8
Transfer registration of premises for the manufacture of ice-cream	...	...	...	...	—
Registration of persons as manufacturers and vendors of ice-cream	...	...	...	...	1,301
Registration of persons as vendors of ice-cream	...	...	...	...	318
Transfer registration of persons as manufacturers and vendors of ice-cream	...	...	...	...	3
Transfer registration of persons as vendors of ice-cream	...	...	...	...	—
Total registrations effected	...	...	...	...	3,301
Total transfer registrations effected	...	...	...	...	27

MILK AND DAIRIES ADMINISTRATION.

The greater part of the supply of milk for the City is obtained from sources lying within an area having a radius of 50 miles from Birmingham, and the total estimated quantity for liquid consumption is about 65,000 gallons per day. Daily supplies are also obtained from other parts of England and Wales and from Scotland. The quantity of milk produced within the City continues to diminish.

The Public Health Committee is responsible for all dairy premises in the City area and for the conditions under which milk is handled therein, and for the state of milk shops, while the Markets and Fairs Committee supervises all matters relating to the health of cows and the condition of cowsheds.

The effective work carried out by the dairy inspectors during 1935 has been continued during the past twelve months, and in the latter part of this year the investigation of certain practices in relation to reconstitution of milk was carried out by Dr. Kelly, Senior Assistant Medical Officer of Health. This investigation is not yet complete, and it will be more appropriate to deal with the matter fully in my report for 1937.

A table showing alterations in the register of purveyors of milk during 1936 and a survey of the work done by the inspectors follows. It will be observed that the public prefers, to an increasing degree, milk sold in bottles which are filled and sealed on registered dairy premises, and also that there has been an appreciable reduction in the number of retail purveyors on the register by reason of the fact that certain purveyors have amalgamated, while others have been bought out by larger firms. The action of these purveyors in amalgamating or giving up the milk trade has probably been influenced by the demand of the general public for more efficient and extensive service,

by some reduction in the margin of profits allowed to distributors by the Milk Marketing Board, and by the necessity for maintaining a higher level of efficiency in the control of dairy establishments, which has been placed upon the distributors by the Board and by this Department.

The following table shows the alterations in the register of purveyors of milk during 1936 and a summary of the work done by the inspectors during the year:—

	1935.	1936
Number of wholesale purveyors	125	121
Number of retail purveyors	1,007	976
Number of milkshops	3,354	3,226
Number of bottled milk shops	2,875	3,065
Number of bottled milk purveyors	40	41
Total number of new registrations issued	349	376
Total number of transfer registrations issued	341	410
Total number of deletions from register	324	348

Number of Visits Paid.

Milkshops	6,166
Wholesale purveyors	174
Retail purveyors	707
To pasteurising plants	796
Other visits	13
Unsuccessful visits	638

Defects Found.

Limewashing milkshop or store required...	60
Sanitary defects	110
Other defects	155
Notices sent	2

MILK (SPECIAL DESIGNATIONS) ORDER, 1923.

MILK (SPECIAL DESIGNATIONS) ORDER, 1936.

On the 1st June of this year the Milk (Special Designations) Order, 1936, took the place of the previous Order. The principal changes occasioned thereby consist of the substitution of the designations "Tuberculin Tested" [or in the case of farm bottled milk "Tuberculin Tested (Certified)"] "Accredited", "Pasteurised" and "Tuberculin Tested (Pasteurised)" for the designations "Certified", "Grade A (Tuberculin Tested)", "Grade A", "Pasteurised" and "Grade A (Pasteurised)"; the devolution of the responsibility for issuing licences to produce "Tuberculin Tested" milk by the Ministry of Health to county and county borough councils; and the adoption, in the methylene blue reduction test, of an alternative standard for judging the condition of raw designated milks.

The table below shows the numbers of designated licences issued during the year, both under the old Order and the new. Licences granted under the Order of 1923 were allowed to remain in force until the end of 1936, and it will thus be noted that the total of licences issued was in excess of that for 1935.

LICENCES ISSUED UNDER THE MILK (SPECIAL DESIGNATIONS) ORDER, 1923.

	1935.	1936.
Producers of "Certified" milk	1	1
Dealers in "Certified" milk	14	15
Dealers in "Grade A (Tuberculin Tested) milk	28	23
Producers of "Grade A" milk	17	21
Dealers in "Grade A" milk	81	83
Producers of "Grade A (Pasteurised)" milk	2	1
Dealers in "Grade A (Pasteurised)" milk	7	4
Producers of "Pasteurised" milk	22	20
Dealers in "Pasteurised" milk	141	163

Supplementary Licences.

"Certified" milk	3	3
"Grade A (Tuberculin Tested)" milk	5	4
"Grade A" milk	14	13
"Pasteurised" milk	7	3

LICENCES ISSUED UNDER THE MILK (SPECIAL DESIGNATIONS) ORDER, 1936.

Producers of "Tuberculin Tested" milk	...	...	...	2
Dealers in "Tuberculin Tested" milk	...	...	...	6
Producers of "Accredited" milk	...	...	...	1
Dealers in "Accredited" milk	...	...	...	4
<i>Supplementary Licences.</i>				
"Accredited" milk	...	...	...	2
"Pasteurised" milk	...	...	...	2

				1935	1936
Total licences issued during the year	...	...	...	342	371

The scheme of sampling of "Grade A" (later "Accredited") milk for Worcestershire County Council, having operated successfully during 1935, was continued in 1936.

The demand for designated milks in place of non-designated continues to gain ground, and this is reflected in some measure in an increase among the farmers in the City of those producing either "Tuberculin Tested" or "Accredited" milk.

The total number of samples taken during the year was 723. The practice of taking samples of Certified milk for the Ministry of Health was discontinued with the introduction of the new Order, so that 21 of these samples only were taken in 1936.

The total samples of Certified, Grade A (Tuberculin tested) and Grade A milks amounted to 342 and of these the percentages below the legal standards were 19.6, 25.8 and 18.1 respectively. Compared with the similar results obtained during 1935, these figures show improvement of the general standards.

The number of samples of Pasteurised milk was 381, of which 110 were submitted to the Phosphatase test. None of the samples contained over 100,000 organisms per c.c., while only 15 contained over 30,000 per c.c. Of the phosphatase results, however, 47 were found to be unsatisfactory. These figures show that the bacterial content of the milk reaching the City dairies is less than has hitherto been the case.

THE INSPECTION OF COWS AND COWSHEDS WITHIN THE CITY AREA.

(Summary of Report by Mr. BRENNAN DE VINE, Chief Veterinary Officer).

At the end of 1936 there were 85 dairy farms housing 1,382 milch cows in 177 registered sheds, and 33 milch cows in 2 sheds pending registration.

For the purposes of the Milk and Dairies Order, 1926, the cows and cowsheds in City dairies are subject to regular veterinary inspection, and each cowshed has been visited at least once a month; during the year 2,444 visits were made.

The health and cleanliness of the cows were generally good, and constant attention has also been paid to the sanitary condition of the cowsheds.

Mastitis.—There were 77 cases of cows affected with acute catarrhal mastitis. In all of these cases the affected cows were kept isolated and their milk was prohibited from sale for human consumption.

Milk (Special Designations) Order, 1936.—The Minister of Health made a new Milk (Special Designations) Order, which came into force 1st June, 1936.

The new Order has two main objects—to transfer from the Minister to Local Authorities the duty of granting licences to the producers of certain graded milks and to improve and simplify the special designations of milk.

The designations under the old 1923 Order created confusion. In the new Order the grades are "Tuberculin Tested", "Accredited", and "Pasteurised". "Accredited" milk replaces "Grade A" milk and is subject to similar conditions.

The new Order provides that in respect of the production of "Accredited" milk every milch cow belonging to the herd shall be submitted to a clinical examination once in every three months, and that where an animal is certified as showing evidence of any disease which is likely to affect the milk injuriously, it shall be segregated from the rest of the herd, as the case may require, and the special designation shall not be used in relation to its milk.

At 21 farms within the City herds have been examined and the required certificates issued.

Three farms within the City were producing "Tuberculin Tested" milk.

Cowsheds.

It was necessary in sixteen cases to draw the attention of the owners to various conditions, including the dirty condition and defects in floor and other necessary alterations; dirty condition of cows, particularly their flanks; the poor condition of certain cows, and in one case smocks were requested to be supplied to milkers who were wearing dirty clothes.

Eight sheds have been structurally altered to comply with our requirements and added to the register, attention being paid to the internal construction as well as to lighting, drainage and ventilation.

Three other sheds have been enlarged and re-registered.

Forty-one sheds have been discontinued, the buildings having been mostly taken over for building purposes.

Two registered sheds, which were burnt out, are being rebuilt.

Two changes of occupancy have occurred and the register has been amended accordingly.

Detection of Tuberculosis in Milk Produced in City Dairies.—Bulk samples of milk are taken from each City dairy herd during the year as a check on the clinical examination of the dairy cows, and in addition individual samples are taken in suspected cases. 224 samples, of which 23 were infected, were taken as follows:—

157	Mixed samples	...	...	Infected.
67	Individual samples	...	...	8
224				23

Twenty-six cows, affected with tuberculosis, were removed from City dairy herds during the year, 8 of which were found, on post-mortem examination, to be affected with tuberculosis of the udder. The other 18 cows all showed clinical evidence of tuberculosis.

EXAMINATION OF MILK COMING INTO THE CITY FROM OUTSIDE SOURCES FOR THE PRESENCE OF TUBERCLE BACILLI.

1,648 samples of mixed milk were taken at various City depots from churns, etc., sent in from outside sources:—

Source.	Bulk Samples.	Results of Exams. Free	Infected.	Percentage Infected.
Derbyshire	9	6	3	33.3
Gloucestershire	34	33	1	2.9
Herefordshire	3	2	1	33.3
Leicestershire	60	52	8	13.3
Oxfordshire	1	1	—	—
Staffordshire	593	524	69	11.6
Shropshire	158	146	12	7.6
Warwickshire	642	586	56	8.7
Worcestershire	142	126	16	11.2
	1,642	1,476	166	10.1
Pasteurised	6	6	—	—
TOTAL	1,648	1,482	166	—

Note.—The 6 samples of pasteurised milk were taken for the purpose of checking the efficient working of the pasteurisation plant at various depots.

Milk and Dairies (Consolidation) Act, 1915.

In connection with the 166 infected samples of mixed milk which had come into the City from outside sources, notification under the Milk and Dairies (Consolidation) Act, 1915, was sent in each case to the Medical Officer of Health of the County in which the cows from which the milk was obtained were kept, and a veterinary inspector from this department attended at the time the inspection of each of the herds was made by the local authority concerned.

The 166 infected bulk samples were taken from milk supplied from 164 farms and 2 milk depots. With regard to the 2 depot samples the source of supplies is being investigated, and in 1 case, owing to the milk being "bulked" the investigations involve between three and four hundred farms. The 164 farms were visited and 4,882 cows examined, and further milk samples (mixed and individual) taken from each herd by the local authorities concerned.

During the year reports have been received in 128 cases, showing that at farms visited 165 cows were discovered to be affected with tuberculosis and giving milk containing living tubercle bacilli; these cows were subsequently slaughtered.

Of the other 36 cases, at 19 farms it was ascertained that cows had either been sold out for slaughter or gone "dry" prior to the visit to the farm by the veterinary inspector. In 9 cases the source of infection was not traced; further control bulk samples of this milk have been taken and will be investigated in due course; and at the remaining eight farms the investigations were not completed at 31st December.

Notification Received from Outside Local Authorities—

Notifications from Medical Officer of Health, Staffordshire.

1. That a sample of pasteurised milk, retailed by a City dairyman, had been found, on examination, to be infected. We investigated the source of supply of milk and took samples from all the senders to the particular depot. In three cases (two in Shropshire and one in Warwickshire) positive results were obtained. The Medical Officers of Health of the Local Authorities concerned were notified and in each case a cow was traced and dealt with under the Tuberculosis Order.
2. That a sample of milk produced by a City dairy had been found to be infected. We examined the herd and the result of the examination of the samples of milk showed one bulk and two individual samples to be negative, and one individual sample to be positive: the cow concerned was dealt with under the Tuberculosis Order.
3. That a sample of milk which originated from a City depot had been found to be infected. Samples were taken from the source from which this milk came but were found to be negative.

Notifications from Medical Officer of Health, Smethwick:—

1. That two samples of milk which originated from a City depot had been found to be infected. Samples of milk were taken from all the senders to this particular depot and in two cases the result of the examination was positive. In the one case the County Medical Officer of Health for Staffordshire was notified and the herd inspected. Two individual and two bulk samples were taken, the examination of which showed them to be negative. It was ascertained, however, that four cows had been sold since the original sample was taken by us, and of these four cows it was reported that one had an indurated quarter and was in milk at the time the positive sample was taken, probably being the cause of the infection. In the other case the County Medical Officer of Health for Shropshire was advised and the herd was inspected, when one cow was taken and dealt with under the Tuberculosis Order: the samples taken proved to be negative.
2. That a sample of milk which originated from a City dairy had been found to be infected. The farm was visited by us, twenty-seven cows examined and four individual and three bulk samples taken. The result of the bacteriological examination showed all these samples to be free.

Notification from the Medical Officer of Health, Worcestershire:—

1. That tubercle bacilli had been found in the supply from a City depot. We took samples of milk from the supplies of fifty-seven senders to this depot, and of these six proved to be infected (two Staffordshire, four Warwickshire). The Medical Officers of Health of the Local Authorities concerned were notified and in four cases one cow was taken at each farm and dealt with under the Tuberculosis Order; in the other two cases two cows were taken at each farm, making a total of eight cows dealt with under the Tuberculosis Order.

Comparative Return.—The following table shows the number of samples of milk sent in from outside sources taken during the past ten years and the percentage infected:—

Year	Samples Taken	Samples Infected	Percentage Infected
1927	835	60	7.2
1928	974	91	9.3
1929	958	64	6.7
1930	1,699	105	6.2
1931	1,657	133	8.0
1932	1,086	97	8.9
1933	1,694	108	6.4
1934	1,699	109	6.4
1935	1,668	134	8.0
1936	1,648	166	10.1

Average for Period: 7.7

Note.—As at 31st December there were 2,236 senders of milk to Birmingham it would ensure a wider control of the milk supply if samples were taken from all senders at least once a year. This would necessitate taking an extra dozen samples a week.

Summary of Samples of Milk (Nos. 1924-3795) taken during 1936 :

<i>From Outside Dairies :—</i>		No. taken	No. Infected
Pasteurized	...	6	—
Accredited	...	12	1
Tuberculin Tested	...	20	—
Non-designated	...	1,610	165
<i>From City Dairies :—</i>			
Accredited	...	57	7
Non-designated	...	167	16
TOTAL		1,872	189

ERADICATION OF TUBERCULOSIS FROM DAIRY HERDS SUPPLYING MILK TO THE CITY.

Birmingham Corporation Scheme.—Under the Birmingham Corporation Scheme for the eradication of tuberculosis from herds supplying milk to the City, the necessary veterinary assistance and tuberculin are given free, subject to certain conditions being complied with. The primary object is that the milk supply of Birmingham shall be as free from infection of tuberculosis as possible.

The double intradermal test with synthetic tuberculin has been used for all herds tested by us during the year.

Eighteen herds, comprising 1,008 animals, were in the scheme on the 31st December last. From thirteen of these herds "Tuberculin Tested" milk is supplied to the City.

HERDS TESTED DURING 1936.

The testing of herds which come under the Scheme is carried out half-yearly and the following return gives the number of animals tested during the year :—

	<i>Tested</i>	<i>Passed</i>	<i>Failed</i>	<i>Date of entering Scheme</i>
1	375	375	—	October 24th, 1907
2	146	129	17	October 3rd, 1908
3	20	16	4	May 26th, 1928
4	56	55	1	November 22nd, 1907
5	14	13	1	January 6th, 1908
6	232	229	3	October 3rd, 1908
7	93	93	—	October 4th, 1924
8	77	77	—	September 26th, 1928
9	131	125	6	February 7th, 1929
10	113	112	1	November 10th, 1931
11	94	94	—	October 1st, 1932
12	29	29	—	May 8th, 1932
13	187	187	—	November 10th, 1932
14	51	49	2	January 1st, 1934
15	133	129	4	April 3rd, 1935
16	92	72	20	May 11th, 1936
17	51	40	11	September 23rd, 1936
18	53	29	24	October 14th, 1936
19	44	44	—	Discontinued
20	48	46	2	Discontinued
21	95	72	23	Discontinued
22	61	59	2	Discontinued
23	40	38	2	Discontinued
24	160	81	79	Discontinued
25	36	33	3	Discontinued
26	40	38	2	Discontinued
27	22	14	8	Discontinued
	2,493	2,278	215	
		91.4%	8.6%	

Cows tested during 1935 :—

1,774	1,737	37
	97.9%	2.1%

Note.—In the case of No. 19 the Owner stopped sending his milk to Birmingham. Nos. 20, 21, 22, 23, 24, 25, 26 and 27 did not continue in the Scheme owing to certificate of testing not being accepted by the Warwickshire County Council.

TESTING OF HERDS.

Since the introduction of the new Order of 1936 we have had twelve applications from farmers to test their herds, but we could not comply with their applications because Warwickshire will not issue licences in connection with our testing. These farmers were willing to submit their herds to our testing, providing the testing was done free; but are not willing for their herds to be tested if they have to pay for the testing. If the milk which they produce is for the supply of Birmingham, it would be an advantage to the County to have these herds included in the Birmingham Scheme for free testing and thus help to eradicate tuberculosis from the cattle in the County. It would appear to be against the interests of the agriculturalists in Warwickshire to refuse to grant licences for herds on which we are willing to carry out tests.

INSPECTION OF SLAUGHTERHOUSES, ETC.

The inspection of meat at the public abattoir is now carried out by four veterinary inspectors and six meat inspectors. A fifth veterinary inspector is responsible for the inspection of meat at Montague Street public slaughterhouse, bacon factories and private slaughterhouses in the centre of the City. For the purposes of inspection of shops, food premises and private slaughterhouses, the City is divided into six areas with a district inspector in charge of each. Another inspector is responsible for the inspection of foodstuffs in the fish, fruit and vegetable wholesale markets.

Owing to the growth of the work in the Department, particularly in relation to the inspection of meat, five additional meat inspectors were appointed during the year.

Veterinary examination is regularly made of all animals arriving in the City for slaughter, and of all animals in lairs awaiting slaughter, so that any diseased animal may be isolated and steps taken to prevent the spread of infection to other animals.

In addition to the public slaughterhouses, there were, at the 31st December, 87 private slaughterhouses in the City area:—

Registered slaughterhouses	...	...	48
Annually licensed slaughterhouses	...	...	39

These private slaughterhouses are regularly visited by the district inspectors.

Of the 87 private slaughterhouses in the City area, 25 are used for the slaughter of pigs only.

RETURN OF ANIMALS SLAUGHTERED.

Return of Animals slaughtered in the Public Slaughterhouses:

PUBLIC ABATTOIR, SHERLOCK STREET.

Beasts.	Calves.	Sheep and Lambs.	Pigs.	Total.
48,973	90,134	258,283	94,409	491,799

PUBLIC SLAUGHTERHOUSE, MONTAGUE STREET.

Beasts	Calves	Sheep and Lambs	Pigs	Total
10	24	52	6,744	6,830

RETURN OF ANIMALS SLAUGHTERED IN PRIVATE SLAUGHTERHOUSES.

District	Beasts	Calves	Sheep	Pigs	Total
Central	—	—	703	261,738	262,441
No. 1 : Harborne and Winson Green	778	125	7,307	1,360	9,570
No. 2 : Aston and Perry Barr	1,730	1,323	11,387	12,034	26,474
No. 3 : Saltley and Erdington	1,784	464	11,412	2,535	16,195
No. 4 : Small Heath and Yardley	955	691	8,028	1,750	11,424
No. 5 : Balsall Heath and King's Heath	1,209	395	11,673	1,746	15,023
No. 6 : Selly Oak and Northfield	1,512	481	11,411	20,123	33,527
TOTAL	7,968	3,479	61,921	301,286	374,654

TOTAL SLAUGHTERED IN CITY.

		Beasts	Calves	Sheep and Lambs	Pigs	Total
1935	....	55,036	100,176	316,550	381,625	853,387
1936	....	56,951	93,637	320,256	402,439	873,283

Return showing the approximate amount and percentage of home-killed and imported meat sold in the City during the year:—

					Home Killed tons.	Imported tons.	Total tons.
Beef and Veal	....	....	....	....	18,401	13,751	32,152
Mutton	....	....	....	....	6,005	12,804	18,809
					24,406	26,555	50,961

					Percentage of total:—	
					Home Killed.	Imported.
Beef and Veal	....	....	....	....	57.2	42.8
Mutton	....	....	....	....	31.9	68.1
					47.9	52.1

MONTAGUE STREET PIG MARKET.

This market is divided into an English side and an Imported side. During the year 122,397 pigs were passed through the English side and 30,915 pigs were passed through the Imported side, all these latter pigs being received from Ireland, as compared with 98,083 and 39,791 pigs respectively, during the year 1935. All these pigs were licensed from the market to various bacon factories and slaughterhouses.

In addition to those which passed through Montague Street Market, 15,409 pigs *ex* Ireland were received direct at various slaughterhouses and bacon factories in the City, as compared with 19,814 received in 1935.

WHOLESALE FRUIT, VEGETABLE AND FISH MARKETS.

Sorting Yard, Gloucester Street.—Containers which are found with a percentage of damaged fruit or vegetables, are sent to the sorting yard for unpacking and sorting. Only foodstuffs which are passed as fit by the inspectors are allowed to be offered for sale.

FISH MARKET.

Shell-fish.—81 samples of mussels were collected from consignments *ex*:—

Aber	Kirkcudbright
Annan	Kings Lynn
Barmouth	Lytham
Bodorgan	Oranmore
Conway	Parkgate
Killorglin	Wells-next-the-Sea

and in 19 samples the bacteriological examination showed more than 100 B.Coli per c.c.

17 samples of oysters were collected from consignments *ex*:—

Brightlingsea	London
Liverpool	Whitstable

and in 1 sample the bacteriological examination showed more than 100 B.Coli per c.c.

As a result of the bacteriological examination of samples taken from shell-fish *ex* Aber, Bodorgan and Wells-next-the-Sea, notice was given in each case under the Public Health (Shell-fish) Regulations, 1935, to the local authorities concerned.

Dee Estuary Shell-fish Order.—Under powers contained in the Birmingham Corporation Act of 1935, the Corporation made the above Order, which prohibits the sale of shell-fish taken from layings in the Dee Estuary.

REGISTRATION OF PREMISES USED FOR THE MANUFACTURE OF POTTED MEATS, ETC.

Food Preparation Premises and Shops.

On 31st December there were 190 food preparation premises on our register as follows:—

Cooked Meats, etc., Manufacturers	...	120
Sausage and Pork Pie Manufacturers	...	68
Jam Manufacturers	... ..	2
		<hr/> 190 <hr/>

The following shops in which food is sold were regularly visited:—

Beef and Pork Butchers	...	1,135
Grocers	... ..	1,375
Green Grocers	... ..	1,371
Hucksters	... ..	5,007
Fish Friers	... ..	637
Fishmongers	... ..	663
		<hr/> 10,188 <hr/>

INSPECTIONS.

The following is the number of visits paid by the Inspectors:—

Slaughterhouses	...	9,277
Food Preparation Premises	...	8,040
Fish Friers	... ..	4,749
Beef and Pork Butchers	...	31,425
Grocers	... ..	3,817
Green Grocers and Fishmongers	...	20,663
Hucksters	... ..	1,816
Ham and Bacon Curers	...	4,383
Street Hawkers	... ..	24,243
Cold Stores	... ..	20,886
		<hr/> 129,299 <hr/>

PROSECUTIONS.

Legal proceedings were taken in four cases under the Public Health Acts in respect of diseased and unfit meat exposed and deposited for sale:—

		Fine
Diseased meat deposited for sale	... ..	£5
Diseased meat deposited for sale	... ..	£2 10s. 0d.
Diseased meat exposed for sale	... ..	£2 10s. 0d.
Diseased meat sold	... ..	Dismissed

Legal proceedings were taken in one case under the Public Health (Meat) Regulations against a person for conveying meat through the streets on a lorry without proper protection, and a fine of 20/- was imposed.

Notifications of Food Poisoning.—Several notifications of suspected food poisoning were received from the Medical Officer of Health during the year. In each case the source of the suspected food was investigated.

MEAT AND OTHER FOODS CERTIFIED AS UNFIT FOR HUMAN CONSUMPTION.

Number of Surrenders.	Class of Foodstuffs.	Tons.	Cwts.	Qrs.	Lbs.
14,131	Meat	630	14	1	19
741	Fish	89	12	3	18
1,116	Poultry, Game, etc.	24	10	1	25
966	Fruit and Vegetables	738	18	2	1
162	Miscellaneous	5	16	0	8
<hr/> 17,116		<hr/> 1,489	<hr/> 12	<hr/> 1	<hr/> 15

All the unfit meat, fish, poultry and other foodstuffs are sent to the Salvage Department, Montague Street Depot.

Residual Value.—Compensation at the rate of 3/- per cwt. is paid to the owners of carcasses and parts of carcasses surrendered as unfit for human food, and also in respect of the carcasses of pigs which died during transit.

During the year £1,434 4s. 6d. was paid in respect of the following carcasses, etc. :—

	T.	C.	Q.
Beef	217	13	2
Veal	13	16	1
Mutton	22	2	1
Pork	224	9	2
	<hr/> 478	<hr/> 1	<hr/> 2

DISEASES OF ANIMALS ACTS.

ANTHRAX.

During the year no cases of Anthrax occurred amongst persons residing in the City, but ten suspected cases were reported in animals. Each case was inspected by one of the veterinary inspectors, and in all cases, on microscopic examination of the blood of the dead animals, the result was found to be negative.

BOVINE TUBERCULOSIS.

Tuberculosis Order, 1925.—26 cases of Tuberculosis in cattle coming within the above Order were dealt with. All the affected animals were slaughtered and compensation amounting to £142 2s 6d. paid to the owners.

PARROTS (PROHIBITION OF IMPORT) REGULATIONS 1930.

Under the provisions of this order three consignments of budgerigars were brought into the City and kept isolated for the necessary period of three months. The premises where the birds were kept were visited during the period of isolation.

VI. PREVALENCE OF, AND CONTROL OVER, INFECTIOUS DISEASES.

GENERAL.

The mortality figures for 1936 are compared with the decennial averages in the statement below.

Disease.	Deaths in 1936.	Average 1926-1935.	Above or below the average.
Enteric Fever	2	3	— 1
Smallpox	0	0	—
Measles	39	88	— 49
Scarlet Fever	10	11	— 1
Whooping Cough	107	103	+ 4
Diphtheria	63	72	— 9
Pulmonary Tuberculosis	734	852	— 118
Other Forms of Tuberculosis	71	119	— 48
Influenza	136	341	— 205

The prevalence of the notifiable diseases is shown in the next table :—

Disease.	Cases in 1936.	Average 1926-1935.	Above or below the average.
Enteric Fever	28	41	— 13
Smallpox	0	6	— 6
Scarlet Fever	3981	2438	+1543
Diphtheria	1142	1257	— 115
Erysipelas	640	524	+ 116
Puerperal Fever	96	100	— 4
Puerperal Pyrexia	168	Only notifiable since 1926.	
Ophthalmia Neonatorum	812	478	+ 334
Pulmonary Tuberculosis	962	1276	— 314
Other Forms of Tuberculosis	174	247	— 73
Acute Primary or Influenzal Pneumonia	1943	2618	— 675
Cerebro-Spinal Fever	38	19	+ 19
Acute Poliomyelitis.....	11	12	— 1
Polioencephalitis	1	1	—
Encephalitis Lethargica	23	33	— 10
Malaria	6	5	+ 1
Dysentery	22	18	+ 4
Continued Fever	0	0	—

The scarlet fever cases exceeded the average by 1,543, those of diphtheria were below the average by 115. As indicated by the number of deaths in relation to this incidence scarlet fever was mild and diphtheria relatively severe in type.

The action taken with regard to puerperal fever, puerperal pyrexia and ophthalmia neonatorum is recorded in the Maternity and Child Welfare section of this Report. The increase in notifications of ophthalmia neonatorum is significant only of greater freedom in notifying many cases which are not severe and are not gonococcal in origin.

The following cases were reported through the Head Teachers of Elementary Schools and the Attendance Officers :—

	1936.	1935.	1934.
Measles	6,079	8,765	4,967
German Measles	332	5,192	985
Whooping Cough	6,120	3,375	5,896
Chicken Pox	6,230	5,584	5,437
Mumps	11,186	1,945	861

The cases were visited by Health Visitors and steps taken to exclude contacts from school where necessary.

ENTERIC FEVER.

During the year there were 44 cases notified as Enteric Fever, but further investigation revealed the fact that 16 of these were not suffering from the disease. Of the remaining 28 cases 20 were contracted outside the City, and the other 8 Birmingham cases are tabulated as follows :—

Typhoid Fever	...	...	...	...	2
Para Typhoid A	...	...	...	...	0
Para Typhoid B	...	...	...	...	6
Para Typhoid C	...	...	...	...	0

Two deaths occurred, one from Para Typhoid and one from Typhoid, the disease being discovered on a post-mortem being performed.

ENTERIC FEVER.

		Number of Cases.	Case rate per 1,000.	No. of deaths registered.	Death rate per 1,000.
1901-5	(Average)	544	.70	91	.12
1906-10	"	242	.30	51	.06
1911-15	"	90	.11	22	.03
1916-20	"	22	.02	5	.01
1921-25	"	30	.03	4	.00
1926-30	"	41	.04	5	.00
1931-35	"	42	.04	2	.00
1927		40	.04	4	.00
1928		20	.02	3	.00
1929		31	.03	4	.00
1930		62	.06	9	.01
1931		54	.05	1	.00
1932		58	.06	2	.00
1933		30	.03	1	.00
1934		40	.04	6	.01
1935		28	.03	2	.00
1936		28	.03	2	.00

UNDULANT FEVER.

One case of Undulant Fever came to the notice of the Department during the year, but upon investigation it was found that in all probability the infection had been contracted abroad.

GLANDULAR FEVER.

No cases of this disease came to the notice of the Department during the year 1936.

SMALLPOX.

No cases of smallpox occurred in the City during the year. A few persons living in the City were contacts to known cases of smallpox in other areas. Accordingly they were visited, vaccination offered, and daily supervision of each was carried out for a period covering the interval of incubation of the disease.

VACCINATION.

Since April 1st, 1930, when the Local Government Act, 1929, came into force, the administration of the Vaccination Acts has been carried out by the Public Health Committee.

Below are tabulated statistics relating to this work for the current year, together with similar figures relating to each year since 1928. It will be seen that the percentage of successful vaccinations has risen slightly above the figure for 1935, though lower than that for previous years, while the slight increase of conscientious objectors experienced during recent years continued in 1936. Coupled with this latter fact, however, it has to be remembered that only four cases of smallpox have occurred in the City since 1928; so that there has been no strong incentive to have vaccination performed where parents are otherwise hesitant.

VACCINATION.

	1936	1935	1934	1933	1932	1931	1930	1929	1928
Births returned	16,501	16,340	15,703	17,063	17,832	17,866	17,590	17,786	17,954
Conscientious objectors, per cent.	31.0	30.6	29.5	28.0	28.0	26.8	25.2	20.4	18.7
Died unvaccinated	920	856	823	830	958	841	900	939	1,020
Successful Vaccinations (per cent. of survivors)	51.7	50.8	53.1	55.4	54.8	54.3	53.7	62.0	65.0
Insusceptible	0.5	0.4	0.5	0.9	1.0	1.1	1.2	0.5	0.7
Postponed by Medical Certificate	0.5	0.3	0.5	0.4	0.4	0.5	0.6	0.7	0.4
Removed	3.4	4.9	4.1	3.8	3.5	4.5	5.1	4.1	3.9
Lost sight of	3.0	2.6	2.6	2.6	2.7	2.3	2.4	2.5	2.6
Still under notice	8.1	8.7	8.0	7.6	7.9	9.2	10.5	9.1	7.7

MEASLES.

All cases notified to the Department through the schools have been systematically visited by health visitors, and advice as to nursing and general hygiene given where required.

During the year 491 cases were admitted to Little Bromwich Hospital for treatment.

Since the third quarter of 1930 immunisation methods, even though on a restricted scale, have been applied to the attenuation of infection or the prevention of the disease. It is known that the blood serum of a person who has previously suffered from measles, when given intramuscularly to contacts in suitable amount and at a suitable stage in the incubation period, will either prevent the disease occurring, or so modify it as to make the attack a mild one.

The supply of serum has been augmented by the very generous co-operation of the Birmingham Blood Transfusion Service, whose members have kindly come forward to act as donors.

This serum has been given to selected children under five years of age who had been in contact with measles and who were either also acutely ill with some other disease or were in a state of chronic ill-health. In most of the cases the aim was, not to prevent infection, but to attenuate it, thus obtaining life-long immunity without grave disturbance of health. Apart from cases referred by health visitors and general practitioners for such immunisation, some of the voluntary hospitals requested help with a view of *preventing* further cases occurring in their wards where there were children suffering from acute illnesses. Immunisation has been carried out on 269 children during the year with satisfactory results. The inoculations were for prevention in 98 cases and for attenuation in 171.

There were 39 deaths registered from the disease during the year.

The number of cases in past years, together with the mortality rate, are set out in the following table.

	Number of Cases*	Number of Deaths.	Death rate per 1,000 of population.
1901-5 (Average)	?	279	.36
1906-10	?	294	.36
1911-15	6,027 (1912-1915)	419	.48
1916-20	10,773	168	.18
1921-25	6,831	121	.13
1926-30	7,464	100	.10
1931-35	7,504	76	.08
1927	9,032	129	.13
1928	5,030	41	.04
1929	9,764	196	.20
1930	6,512	58	.06
1931	9,745	177	.18
1932	5,033	52	.05
1933	9,011	77	.08
1934	4,967	23	.02
1935	8,765	52	.05
1936	6,079	39	.04

*Partial notification only through schools, except for the years 1916-19.

From the following table it is evident that the death-rate from measles in the Central Wards is far in excess of that for the Middle or the Outer Ring of Wards, owing to the course of the disease and the liability to contract complications being directly influenced by overcrowding and insanitary conditions.

Measles death-rate per 1,000.						1934.	1935.	1936.
Central Wards	...	...	...	...	...	.05	.11	.06
Middle Ring	...	...	...	...	...	.02	.03	.02
Outer Ring	...	...	...	...	...	.01	.04	.03

The age-distribution of the fatal cases of measles was as follows :—

	1934.	1935.	1936.
Under 1 year	4	11	8
1 and under 2 years	10	22	14
2 and under 5 years	4	13	12
5 years and over	5	6	5
	—	—	—
	23	52	39
	—	—	—

SCARLET FEVER.

The total number of notifications received during the year for this disease was 4,009. Of these 1,717 were treated in hospital and the remainder, 2,292, were treated at home.

After revision of diagnosis in those cases admitted to hospital, the total number of true cases of scarlet fever treated in hospital was 1,696 and those at home 2,285. Several cases admitted as diphtheria proved to be suffering from scarlet fever.

In addition, there were 18 cases treated in the City Hospital on behalf of other Authorities.

The death-rate of .01 per 1,000 for 1936 is about the same as the average death-rate for this disease for the past 10 years,

SCARLET FEVER CASES AND DEATHS.

	Number of Cases.	Case-rate per 1,000 population	Number of Deaths	Death-rate per 1,000 population	Case mortality per. cent
1901-05 (Average)	4,038	5.21	172	.22	4.26
1906-10 ,,	3,956	4.83	116	.14	2.93
1911-15 ,,	5,456	6.29	125	.14	2.29
1916-20 ,,	2,472	2.73	41	.04	1.66
1921-25 ,,	2,652	2.84	32	.03	1.21
1926-30 ,,	1,910	1.96	9	.01	0.47
1931-35 ,,	2,966	2.90	14	.01	0.47
1927	1,510	1.56	8	.01	0.53
1928	1,521	1.56	5	.01	0.33
1929	2,413	2.46	9	.01	0.37
1930	2,397	2.44	15	.02	0.63
1931	2,761	2.73	10	.01	0.36
1932	2,544	2.50	12	.01	0.47
1933	2,639	2.58	20	.02	0.76
1934	3,297	3.21	15	.01	0.45
1935	3,591	3.48	12	.01	0.33
1936	3,981	3.84	10	.01	0.25

The report on cases treated at the Infectious Diseases Hospital will be found on page 76.

WHOOPIING COUGH.

Whooping cough caused 107 deaths during 1936. The following table gives the number of cases and deaths in previous years, and it will be seen that both the number of known cases and the death-rate was at a higher level than in 1935.

	Number of Cases*	Number of Deaths	Death-rate per 1,000 Population.
1901-5 (Average)	?	316	.41
1906-10 ,,	?	294	.36
1911-15 ,,	3,264 (1912-1915)	213	.25
1916-20 ,,	3,592	206	.23
1921-25 ,,	4,463	180	.19
1926-30 ,,	4,443	119	.12
1931-35 ,,	4,130	87	.08
1927	2,496	69	.07
1928	6,463	163	.17
1929	3,347	123	.13
1930	5,012	110	.11
1931	3,990	89	.09
1932	5,248	131	.13
1933	2,143	35	.03
1934	5,896	115	.11
1935	3,375	66	.06
1936	6,120	107	.10

*Partial Notification through Schools.

The ages at death were as follows:—

	1932.	1933.	1934.	1935.	1936.
Under 1 year 	60	14	52	26	66
1 and under 2 years 	41	13	37	14	20
2 and under 5 years 	23	6	24	24	19
Over 5 years 	7	2	2	2	2
Totals	131	35	115	66	107

Thus 86 out of the 107 deaths occurred among children under two years of age.

Every case of whooping cough reported to the Department is visited, and advice given on hygienic measures. Where appropriate the services of a district nurse are supplied under an arrangement made with the District Nursing Association.

DIPHTHERIA.

The total number of cases notified was 1,603. Of these 1,519 were removed to the City Fever Hospital, the remainder (84) being nursed at home.

Revision of diagnosis took place in 473 of the hospital cases and 4 home cases, while 16 cases sent in as scarlet fever proved to be suffering from diphtheria.

After correction, the net number of cases of definite diphtheria belonging to the City was 1,142, of whom 1,062 were treated in hospital and 80 at home.

In addition, there were 101 cases treated in the City Hospital on behalf of other authorities.

DIPHTHERIA CASES AND DEATHS.

	Cases of Clinical Diphtheria.	Case-rate per 1,000 of Population.	Deaths	Death-rate per 1,000 of Population.	Case Mortality per cent.
1901-05 (Average)	991	1.28	159	.20	16.0
1906-10	1,210	1.48	149	.18	12.3
1911-15	1,125	1.30	155	.18	13.8
1916-20	1,065	1.19	143	.16	13.4
1921-25	1,651	1.76	109	.12	6.6
1926-30	1,642	1.69	84	.09	5.1
1931-35	871	0.85	60	.06	6.9
1927	1,543	1.60	61	.06	4.0
1928	1,552	1.59	70	.07	4.5
1929	1,611	1.64	86	.09	5.3
1930	1,701	1.73	88	.09	5.2
1931	1,171	1.16	62	.06	5.3
1932	620	0.61	35	.03	5.6
1933	417	0.41	33	.03	7.9
1934	1,019	0.99	84	.08	8.2
1935	1,129	1.09	84	.08	7.4
1936	1,142	1.10	63	.06	5.5

The distribution over the City is indicated in the table below. From this it will be seen that the cases were more numerous in the Central Wards than in the Middle and Outer Ring.

Central Wards	{	St. Paul's	2.28	} Average 1.70
		St. Mary's	.....	.....	2.46
		Duddeston and Nechells	.....	.....	1.73
		St. Bartholomew's	.....	.....	1.22
		St. Martin's and Deritend	.....	.....	2.30
		Market Hall	.....	.....	1.06
		Ladywood	.....	.....	0.85
Middle Ring	{	Lozells	1.71	} Average 1.03
		Aston	.....	.....	1.45
		Washwood Heath	.....	.....	0.49
		Saltley	.....	.....	0.31
		Small Heath	.....	.....	0.27
		Sparkbrook	.....	.....	0.80
		Balsall Heath	.....	.....	1.10
		Edgbaston	.....	.....	0.77
		Rotton Park	.....	.....	1.09
		All Saints'	2.27	

Outer Ring	{	Soho	1.04	}	Average 0.72
		Sandwell	0.57		
		Handsworth	0.56		
		Perry Barr	1.12		
		Erdington	1.23		
		Gravelly Hill	0.80		
		Bromford	1.33		
		Stechford	0.72		
		Yardley	0.84		
		Acocks Green	0.80		
		Hall Green	0.49		
		Sparkhill	0.82		
		Moseley and King's Heath	0.46		
		Selly Oak	0.41		
		King's Norton	0.28		
Northfield	0.69				
Harborne	0.11				
Whole City		1.10			

A report on the cases treated at the Infectious Diseases Hospital will be found on page 76.

DIPHTHERIA ANTI-TOXIN.

Diphtheria anti-toxin is distributed free of charge to medical practitioners for the treatment of their patients and can be obtained from the Public Health Department, the Bacteriological Laboratory, and 18 Police Stations.

IMMUNISATION AGAINST DIPHTHERIA.

The work of immunisation continues to make good progress, and 14,697 children were immunised through this department during 1936, together with 794 immunised by general practitioners.

There are now approximately 90,000 immunised children and adolescents in the City. The table below shows the various directions in which immunisation has been effected. In order to carry this out the Medical Officers concerned now spend 11 sessions a week on diphtheria immunisation, concentrating on the children under eight years of age, since these are the most susceptible to the disease.

	Number of Immunisation Centres.	CHILDREN IMMUNISED.	
		Completely immunised.	Incompletely immunised.
Council House	1	536	25
Infant Welfare Centres	52	6,332	760
Day Schools and Special Schools	161	7,500	390
Residential Institutions and Residential Schools	20	329	—
Totals	234	14,697	1,175

Renewed proof of the value of immunisation has been afforded during the year. It is significant that in Birmingham no death from diphtheria has occurred in an immunised person since the work was started in 1925.

In order to encourage early immunisation, to stimulate the interest of parents and to show that the protective treatment is simple and not painful, a film has been taken at Little Bromwich Fever Hospital, two schools and an Infant Welfare Centre in the City, demonstrating the technique of immunisation at actual clinics. This film has been shown some 290 times.

DYSENTERY.

Twenty-three cases were notified during the year and on investigation 17 of these proved to be dysentery, being confirmed bacteriologically. Eight cases were due to B. *Shigella*, eight to Flexner's bacillus, and one to Morgan's bacillus.

FOOD POISONING.

Cases of food poisoning became compulsorily notifiable in January, 1936, and during the year some 604 such cases were notified to the Public Health Department. The vast majority were of a trivial nature, not calling for any specific action by the Department. In regard to the few remaining cases, the necessary action of tracing the infected food stuffs, etc., was carried out.

There were no deaths from this condition during the year under review.

ACUTE ANTERIOR POLIOMYELITIS.

Eleven cases of this disease were notified, 2 cases proving fatal. A review of the eleven cases some six months after the onset showed that one had completely recovered while improvement was shown in a further eight cases. Treatment is being continued in these eight cases.

POLIOMYELITIS.

Year.	Cases notified.	Died.	Complete recovery.	Some paralysis.
1917	11	2	6	3
1918	4	—	2	2
1919	14	1	6	7
1920	1	—	—	—
1921	11	4	1	6
1922	6	—	1	5
1923	33	3	1	29
1924	39	5	5	29
1925	11	3	5	3
1926	38	3	3	32
1927	15	1	6	8*
1928	6	1	1	4
1929	6	—	1	5
1930	9	1	3	5
1931	3	—	1	2
1932	17	6	2	9
1933	10	3	1	6
1934	5	—	3	2
1935	9†	—	2	5
1936	11	2	1	8

* One died later of intercurrent disease. †Two left district.

POLIO-ENCEPHALITIS.

One case of this disease was notified during the year, which proved fatal.

ENCEPHALITIS LETHARGICA.

During the year 23 true cases of this disease came to light in the City, 21 proving fatal. The dates of onset were as follows :—

1922	...	...	...	...	1
1923	...	...	...	...	1
1924	...	...	...	...	3
1925	...	...	...	...	1
1926	...	...	...	...	1
1927	...	...	...	...	3
1928	...	...	...	...	1
1929	...	...	...	...	1
1930	...	...	...	...	1
1931	...	...	...	...	3
1934	...	...	...	...	1
1935	...	...	...	...	2
1936	...	...	...	...	3
Unknown	...	...	...	...	1

The cases notified and deaths recorded in previous years have been as follows :—

Year.	Cases.	Deaths.
1919	11	5
1920	18	7
1921	25	8
1922	12	4
1923	29	12
1924	282	44
1925	92	32
1926	89	36
1927	53	32
1928	41	22
1929	27	20
1930	10	7
1931	18	12
1932	23	19
1933	25	21
1934	12	9
1935	28	26
1936	23	21

CEREBO-SPINAL FEVER.

Forty-four cases were notified as cerebro-spinal meningitis during the year. Of these 38 were confirmed bacteriologically. In six cases the diagnosis was afterwards revised. Of the 38 actual cases 23 succumbed to the attack, giving a case mortality rate of 61 per cent.

Age distribution.				Cases.		
Under 1 year				11
1 and under 3 years				6
3 and under 5	„			4
5 — 9	„			2
10 — 14	„			3
15 — 19	„			6
20 — 25	„			2
25 — 29	„			2
30 — 35	„			1
35 years upwards				1

The cases and deaths in previous years have been as follows :—

Year.	Cases notified.	Deaths.
1920	25	18
1921	9	7
1922	18	16
1923	4	2
1924	11	8
1925	7	6
1926	10	9
1927	12	10
1928	12	9
1929	15	15
1930	14	14
1931	25	21
1932	31	22
1933	26	20
1934	24	20
1935	17	15
1936	38	23

REPORT ON THE CITY INFECTIOUS DISEASES HOSPITALS FOR THE YEAR 1936.

(By Dr. JOHN MCGARRITY, Medical Superintendent).

PREFACE.

During the year, 4,540 patients were admitted to the wards compared with 4,410 during 1935; 4,506 during 1934; 3,595 during 1933; and 3,996 during 1932. The figure 4,540 includes 128 patients from outside the city, namely, 87 cases of diphtheria, 16 cases of scarlet fever and 25 miscellaneous cases.

The following tables give the number of cases of the most important infectious diseases and miscellaneous cases notified during the year and admitted to the hospital, and also the numbers who were discharged or died, as well as the numbers remaining in hospital at the end of the year. The figures in these tables have not been corrected as regards their true diagnosis. The revised diagnosis will be found under the different diseases later in the report.

It will be noted that the numbers of admissions of notified cases remain practically the same as last year in respect to diphtheria, scarlet fever, and the miscellaneous diseases. There was actually a slight decrease in admission of notified cases of diphtheria; (1,620 compared with 1,796) a slight increase of notified cases of scarlet fever; (1,735 compared with 1,575) and a slight increase in notified cases of the miscellaneous group (1,185 compared with 1,039). The miscellaneous cases included 147 cases of erysipelas; 464 cases of measles; and 384 cases of whooping cough. In continuation of the policy of recent years, these cases of measles and whooping cough were admitted in preference to mild cases of scarlet fever. They were practically all from homes where it was found impossible to give them adequate nursing and care.

The pressure on the special isolation wards, namely the bed isolation and cubicle wards, continues as usual to be severe. Before another year it is hoped that a beginning will be made with the erection of the additional accommodation so badly needed, namely the new cubicle wards, which will provide an extra 156 beds. This will give us altogether 748 beds for infectious cases in Little Bromwich Hospital apart from 60 beds at Witton Hospital reserved for cases of smallpox.

STATISTICS.

LITTLE BROMWICH.

(a) DIPHTHERIA. (Uncorrected for diagnosis).

In hospital on December 31st, 1935	306
Admitted during 1936	1,620
Discharged during 1936	1,565
Died during 1936	73
Remaining on December 31st, 1936	288

(b) SCARLET FEVER. (Uncorrected for diagnosis).

In hospital on December 31st, 1935	149
Admitted during 1936	1,735
Discharged during 1936	1,757
Died during 1936	9
Remaining on December 31st, 1936	118

(c) MISCELLANEOUS. (Uncorrected for diagnosis).

In hospital on December 31st, 1935	57
Admitted during 1936	1,185
Discharged during 1936	1,055
Died during 1936	104
Remaining on December 31st, 1936	83

(d) MISCELLANEOUS (Uncorrected for diagnosis).

Chickenpox	...	...	...	...	61
Dysentery	...	...	...	...	14
Enteric Fever	...	...	...	...	27
Erysipelas	...	...	...	...	147
Influenza	...	...	...	...	1
Measles	...	...	...	...	464
Meningitis	...	...	...	...	8
Miscellaneous Observations	12
Mumps	38
Pneumonia	1
Rubella	27
Vincent's Angina	1
Whooping Cough	384
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Total					1,185
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SCARLET FEVER.

1,735 patients were admitted during the year with a notified diagnosis of scarlet fever; of these, 82 cases were finally diagnosed as suffering from other complaints, as follows:—

No evidence of scarlet fever	...	...	...	...	22
Erythema	...	...	...	...	5
Tonsillitis	...	...	...	...	14
Measles	...	...	...	...	16
Rubella	...	...	...	...	6
Chickenpox	...	...	...	...	1
Nasal diphtheria	...	...	...	...	1
Common cold	...	...	...	...	1
Mumps	...	...	...	...	1
Sunburn	...	...	...	...	1
Broncho-pneumonia	...	...	...	...	1
Urticaria	...	...	...	...	1
Otitis and enteritis	...	...	...	...	1
Nephritis	...	...	...	...	1
Mastoiditis	...	...	...	...	1
Adenitis	...	...	...	...	1
Rhinitis	...	...	...	...	2
Catarrhal jaundice	1
Lobar pneumonia (died)	1
Otorrhoea	2
Bronchitis	1
Enteritis	1
					<hr/>
Total					82
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Actually, 1,725 cases of true scarlet fever were treated in the wards during the year, of whom 61 were notified as diphtheria, 5 as rubella, 3 as measles, one as erysipelas, one as enteric fever, and one as miscellaneous observation.

46 patients had concurrent infections, as follows:—

Scarlet fever and concurrent chickenpox	.....	.....	.....	.....	11
Scarlet fever and concurrent whooping cough	.....	.....	.....	.....	10
Scarlet fever and concurrent measles	.....	.....	.....	.....	8
Scarlet fever and concurrent diphtheria	.....	.....	.....	.....	8
Scarlet fever and concurrent mumps	.....	.....	.....	.....	7
Scarlet fever and concurrent rubella	1
Scarlet fever and concurrent measles and diphtheria	1
					<hr/>
Total					46
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The type of scarlet fever continues to be mild but there were :—

Septic cases	13
Sub-septic cases	...	...	...	...	6
Toxic cases	...	...	...	...	8
Total					27

The number of deaths attributed to scarlet fever was 8, giving a hospital mortality of 0.46 per cent.

Details of fatal cases were as follows :—

	Age in years.	Cause of Death.
1.	37	Simple scarlet fever ; pericarditis ; empyema ; nephritis.
2.	7	Simple scarlet fever ; cerebellar tumour.
3.	19	Simple scarlet fever ; lobar pneumonia.
4.	1½	Simple scarlet fever ; streptococcal laryngitis ; intubation ; tracheotomy.
5.	4	Toxic scarlet fever ; lobar pneumonia.
6.	21	Toxic scarlet fever ; broncho-pneumonia.
7.	6	Septic scarlet fever ; myocarditis.
8.	2	Simple scarlet fever ; broncho-pneumonia.

The principal complications are noted in two groups—(1) serum treated and (2) non-serum treated.

Principal complications.	Serum treated 447		Non-serum treated 1,277	
	Nos.	%	Nos.	%
Arthritis	8	1.79	15	1.17
Nephritis	2	0.45	6	0.47
Uraemia	—	—	1	0.08
Otitis media	36	8.05	50	3.91
Mastoid	12	2.68	5	0.39
Late albuminuria	1	0.22	12	0.95
Late adenitis	56	12.53	121	9.47
Tonsillitis	3	0.67	14	1.10
Relapse	3	0.67	5	0.39
Rhinitis	10	2.24	16	1.25
Lobar pneumonia	3	0.67	—	—
Pericarditis	—	—	1	0.08
Empyema	—	—	2	0.16
Endocarditis	—	—	7	0.55
Myocarditis	1	0.22	3	0.23
Septicaemia	1	0.22	—	—
Enteritis	1	0.22	1	0.08
Appendicitis	—	—	1	0.08
Conjunctivitis	1	0.22	1	0.08
Peritonsillar abscess	1	0.22	1	0.08
Laryngitis	1	0.22	—	—
Phlebitis	—	—	1	0.08
Broncho-pneumonia	1	0.22	1	0.08
Jaundice	—	—	1	0.08
Totals	141		265	

The cases which received serum were the more severe on admission.

Reactions following serum :—

			% of serum treated.
Urticaria	...	122	27.29
Arthritis	...	10	2.24
Pyrexia	...	2	0.45
Erythema	...	1	0.22

Table showing age and sex of scarlet fever patients.

Age group	0—5	5—10	10—15	15—25	25—45	Over 45	Totals.
RECOVERED.							
Males	163	315	163	96	35	5	777
Females	143	388	197	136	65	11	940
DIED.							
Males	1	1	—	2	—	—	4
Females	2	1	—	—	1	—	4
TOTALS	309	705	360	234	101	16	1725

Hospital mortality 0.46 per cent.

DIPHTHERIA.

1,620 patients were admitted to the hospital with a notified diagnosis of diphtheria. Of these, 510 required revision of diagnosis, and 17 were found to be suffering from diphtheria concurrently with another disease. Actually, 1,115 true cases of diphtheria were treated in the wards during the year, including two patients admitted with a notified diagnosis of whooping cough, one as measles, one as scarlet fever and one as miscellaneous observation.

Concurrent infections occurred as follows :—

Concurrent diphtheria and scarlet fever	9
Concurrent diphtheria and measles	4
Concurrent diphtheria and chickenpox	3
Concurrent diphtheria and whooping cough	1
Total	17

Revised diagnosis of 510 patients notified as diphtheria :—

Tonsillitis	222
Carrier of virulent diphtheria organism	63
Scarlet fever	61
Laryngitis	37
Tonsillitis and carrier	34
No evidence of disease	24
Quinsy	11
Measles	8
Rhinitis	7
Mumps	4
Common cold	3
Otorrhoea	3
Broncho-pneumonia	3
Stomatitis	2
Erythema nodosum	2
Whooping cough	2
Vincent's Angina	2
Laryngitis and otorrhoea	2
Bronchitis	2
Mastoid	2
Lobar pneumonia	2
Tonsillitis and rhinitis	2
Miscellaneous	12
Total 510	

The miscellaneous group consisted of one case each of endocarditis, lymphocytosis, otorrhoea and bronchitis, asthma, laryngismus stridulus, gingivitis, pharyngitis, meningococcal carrier, acute poliomyelitis, conjunctivitis, agranulocytic angina, pericarditis.

Nine deaths occurred in the above revised cases; two from broncho-pneumonia; one from anterior poliomyelitis; one from agranulocytic angina; one from pericarditis; one from endocarditis; one from otorrhoea and bronchitis; one from acute streptococcal laryngitis and one from laryngismus stridulus.

Table showing types of diphtheria and mortality.

Type.	Total.	Died.	Mortality.
Faucial	726	19	2.62%
Faucial and nasal	189	34	17.99%
Nasal	135	1	0.74%
Faucial and laryngeal	38	3	7.89%
Faucial, nasal and laryngeal	6	2	33.33%
Laryngeal	12	3	25.00%
Aural	3	—	—
Faucial, nasal and ocular	1	—	—
Faucial and vulvar	1	—	—
Ocular	2	—	—
Faucial and ocular	1	—	—
Wound	1	—	—
Totals	1115	62	5.56%

The case classified as dying from nasal diphtheria, was an infant suffering from marasmus.

22 patients died within 48 hours of admission to hospital and of these, 18 died within 24 hours of admission. Altogether, 62 patients died from diphtheria representing a hospital mortality of 5.56 per cent., which compares very favourably with last year's figure of 6.80 per cent. and the figure of 8.04 per cent for 1934.

Table showing case mortality in diphtheria according to the day of disease on which serum was first administered.

Day of disease on which serum was given.	Total.	Died.	Mortality.
1st	50	2	4%
2nd	161	6	3.72%
3rd	212	15	7.11%
4th	187	17	9.09%
5th	113	8	7.08%
6th day and later	290	13	5.94%
Prophylactic dose later than 5th day	70	—	—
No serum	32	*1	3.13%
Totals	1115	62	5.56%

*Died before serum could be administered.

One death, classified as having serum administered on the 1st day of disease was suffering from renal rickets as well as diphtheria. The other was a haemorrhagic diphtheria with widespread membrane and almost certainly infected several days earlier than the history indicated.

Analysis of causes of death in 62 cases in which diphtheria was either the cause of death or a contributory cause.

Circulatory collapse	50
Laryngeal obstruction with cardiac failure	4
Diphtheria and broncho-pneumonia	3
Late respiratory paralysis	1
Nasal diphtheria and marasmus	1
Faucial diphtheria and generalised tuberculosis	1
Faucial diphtheria and chronic myeloid leukaemia	1
Faucial diphtheria and renal rickets	1
Total	62

Post-diphtheritic paralysis occurred as follows :—

	Recovered.	Died.
Palatal	96	3
Strabismus	14	—
Ciliary	7	—
Facial	9	1
Pharyngeal	10	3
Ptosis	1	—
Lower limbs	27	—
Neck	25	1
Diaphragmatic	1	1
Totals	190	9

The 190 paralyses noted above occurred in 111 patients, all of whom recovered, giving a paralysis rate of 10.55 per cent. as compared with 20.15 per cent. in 1935 and 20.7 per cent in 1934.

The 9 paralyses occurred in 5 fatal cases.

LARYNGEAL DIPHTHERIA.

Fifty-six cases of diphtheria had some laryngeal involvement and of these, 25 required operative interference for the relief of obstruction. In 13 cases, intubation alone was successful in relieving the obstruction, while four required a subsequent tracheotomy. One of these was intubated again three weeks later in order to dispense with a retained tracheotomy tube, a move which met with success. One is still in hospital with a retained tube.

In two cases tracheotomy was performed without a previous intubation, with success. The remaining six cases died; three obtained no relief from either intubation or tracheotomy; one was relieved by tracheotomy but died of broncho-pneumonia two days later with the tube still *in situ*; one who was suffering from severe faucial, nasal and laryngeal diphtheria was relieved by tracheotomy but died of cardiac failure, and one obtained relief with intubation for 24 hours but became obstructed again and was not relieved by tracheotomy.

REACTIONS FOLLOWING SERUM.

Amount of serum administered						0-8	9 or more I.M.	I.V. or I.M.+I.V.	Totals.
Numbers	.....	.....	.....	.....	.....	702	237	144	1083
Urticaria	.....	.....	.....	.....	.....	19	30	38	87
Rigor	.....	.....	.....	.....	.....	—	—	1	1
Morbilliform rash	.....	.....	.....	.....	.....	1	—	—	1
Totals	.....	.....	.....	.....	.....	20	30	39	89
						2.85%	12.66%	27.08%	8.23%

Table showing age and sex of diphtheria patients :—

	Age group.	0—5	5—10	10—15	15—25	25—45	Over 45	Totals.
RECOVERED.								
Males	158	245	60	28	12	1	504
Females	126	245	74	74	26	4	549
DIED.								
Males	14	15	1	1	1	—	32
Females	11	18	—	—	—	1	30
TOTALS	309	523	135	103	39	6	1115

Hospital mortality 5.56 per cent.

WHOOPING COUGH.

In all, 384 patients were admitted with a notified diagnosis of whooping cough and of these, 29 required revision of diagnosis as follows :—

No evidence of whooping cough	.....	17
Broncho-pneumonia	.....	1
Bronchitis	.....	4
Mastoidectomy (before admission) with erysipelas	.....	1
Chickenpox	.....	1
Measles	.....	3
Faucial and laryngeal diphtheria	.....	2
Total	.....	29

Actually, 361 true cases of whooping cough were treated in the wards including :—

Notified as diphtheria	... ..	2
Notified as measles	... ..	3
Notified as erysipelas	... ..	1

Concurrent infections occurred as follows :—

Whooping cough and concurrent diphtheria	.....	2
Whooping cough and concurrent late scarlet fever	.....	1
Whooping cough and concurrent mumps	.....	2
Whooping cough and concurrent measles	.....	4
Total	.....	9

These 9 cases are included in the whooping cough age-sex table.

The principal complications were as follows :—

Onset.	In Patients who recovered.	In Patients who died.
Broncho-pneumonia before admission	37	26
Broncho-pneumonia after admission	9	7
Convulsions	—	15
Enteritis before admission	10	1
Enteritis after admission	7	2
Otorrhoea before admission	20	2
Otorrhoea after admission	9	—
Bronchitis before admission	9	1
Bronchitis after admission	6	—
Marasmus	6	11
Empyema	1	—
TOTALS	114	65

The 114 complications mentioned above occurred in 97 patients who recovered. Of the 361 patients found to be suffering from whooping cough 79 were complicated by pneumonia and of these 33 died. In 63 cases pneumonia was present on admission to hospital, and in 16 cases pneumonia developed whilst the patients were under treatment.

56 deaths occurred amongst whooping cough patients, the cause of death being :—

Whooping cough and broncho-pneumonia	22
Whooping cough, broncho-pneumonia and convulsions	10
Whooping cough and convulsions	5
Whooping cough and marasmus	9
Whooping cough	3
Whooping cough and enteritis	2
Whooping cough and bronchitis	1
Whooping cough, measles and broncho-pneumonia	1
Whooping cough and pyelo nephritis	1
Whooping cough and tuberculous meningitis	1
Whooping cough and rickets	1
Total	56

Table showing age and sex of whooping cough patients.

	Age group.	0—1	1—2	2—3	3—4	4—5	5—10	10—20	Over 20	Totals.
RECOVERED.										
Males		53	32	22	11	10	21	—	—	149
Females		40	33	37	16	15	15	—	—	156
DIED.										
Males		15	6	1	1	1	1	—	—	25
Females		22	7	—	—	—	2	—	—	31
TOTALS		130	78	60	28	26	39	—	—	361

Hospital mortality 15.5 per cent.

MEASLES.

In all, 464 patients were admitted with a notified diagnosis of measles and of these, 32 required revision of diagnosis, as follows :—

Erythema	8
No evidence of infectious disease	7
Miscellaneous	4
Scarlet fever	3
Rubella	3
Whooping cough	3
Bronchitis	2
Diphtheria	1
Serum rash	1
TOTAL	32

The miscellaneous group consists of one case each of scalds of chest, impetigo, abscess of neck and otorrhoea.

Actually, 465 true case of measles were treated in the wards including :—

Notified as scarlet fever	...	...	...	16
Notified as diphtheria	...	...	...	8
Notified as rubella	...	...	...	5
Notified as whooping cough	...	...	...	3
Notified as observation	...	...	...	1
				—
Total				33
				—

Concurrent infections occurred as follows :—

Concurrent measles and whooping cough	.....	.....	.....	.....	18
Concurrent measles, mumps and whooping cough	.....	.....	.....	.....	1
Concurrent measles and diphtheria	.....	.....	.....	.....	6
Concurrent measles and scarlet fever (with nephritis)	.....	.....	.....	.....	1
Concurrent measles and mumps	.....	.....	.....	.....	2
Concurrent measles and carrier of diphtheria bacilli	.....	.....	.....	.....	1
					—
TOTAL					29
					—

These 29 cases are included in the measles age-sex table.

The principal complications were as follows :—

Onset.					In Patients who recovered.	In Patients who died.
Broncho-pneumonia on admission	.....	.....	.....	.....	79	27
Broncho-pneumonia after admission	.....	.....	.....	.....	—	—
Otitis media on admission	.....	.....	.....	.....	25	—
Otitis media after admission	.....	.....	.....	.....	33	1
Enteritis on admission	.....	.....	.....	.....	7	—
Enteritis after admission	.....	.....	.....	.....	1	—
Bronchitis	.....	.....	.....	.....	5	—
Laryngitis	.....	.....	.....	.....	6	3
					(2 intubated) (1 tracheotomy)	
Convulsions	.....	.....	.....	.....	1	1
Encephalitis	.....	.....	.....	.....	—	1
Appendix abscess	.....	.....	.....	.....	1	—
Empyema	.....	.....	.....	.....	—	2
Mastoiditis (with operation)	.....	.....	.....	.....	10	1
Lateral sinus thrombosis	.....	.....	.....	.....	—	1
Cancrum oris	.....	.....	.....	.....	1	—
Destruction of one eye (present on admission)	.....	.....	.....	.....	1	—
Conjunctivitis	.....	.....	.....	.....	4	—
Septic thyroiditis	.....	.....	.....	.....	1	—
					—	—
TOTALS					175	37
					—	—

The 175 complications mentioned above occurred in 142 patients who recovered.

Of the 465 patients found to be suffering from measles, 108 were complicated by pneumonia, and of these, 27 died. In 79 cases pneumonia was present on admission to hospital, and in no case did it develop after admission.

59 cases were complicated by otitis media and of these, one died. In 25 cases otorrhoea was present on admission to hospital, and in 33 cases it developed after admission.

31 deaths occurred among the measles patients, the cause of death being :—

Broncho-pneumonia	15
Broncho-pneumonia and concurrent whooping cough	3
Broncho-pneumonia and laryngitis	3
Broncho-pneumonia and empyema	2
Broncho-pneumonia and influenzal meningitis	1
Broncho-pneumonia and convulsions	1
Broncho-pneumonia and rickets	1
Broncho-pneumonia and marasmus	1
Encephalitis	1
Pulmonary tuberculosis	1
Lateral sinus thrombosis due to mastoid suppuration	1
Measles ; appendix abscess	1
Total	31

Table showing age and sex of measles patients.

Age group.	0—1	1—2	2—3	3—4	4—5	5—10	10—20	Over 20	Totals.
RECOVERED.									
Males	19	43	46	29	25	65	2	5	234
Females	13	42	31	19	22	52	6	15	200
DIED.									
Males	2	4	6	—	—	2	—	—	14
Females	4	6	2	2	2	—	—	1	17
TOTALS	38	95	85	50	49	119	8	21	465

Hospital mortality 6.7 per cent.

ERYSIPELAS.

In all, 147 patients were admitted with a notified diagnosis of erysipelas, and of these, 12 required revision of diagnosis as follows :—

Cellulitis	4
Simple scarlet fever	1
Erythema and septic spots	1
Mumps ; septic lesions—hands and feet	1
Whooping cough and scalds of leg	1
Septic wound—forehead	1
Cellulitis of face ; alveolar abscess ; lobar pneumonia	1 (died)
Cellulitis ; appendix wound ; cardiac failure	1 (died)
Cellulitis of face ; chronic interstitial pneumonia ; bronchiectasis ; toxaemia ; myocarditis	1 (died)
Total	12

Actually, 136 cases of erysipelas were treated in the wards including one notified as whooping cough.

The site of erysipelas was as follows :—

Face	...	...	...	...	105
Face and scalp	...	...	...	...	11
Face, scalp, neck and shoulders	...	...	...	...	2
Face and neck	...	...	...	...	2
Limbs	...	...	...	...	10
Mastoid wound	...	...	...	...	2
Ear	...	...	...	...	1
Generalised	...	...	...	...	3
Total					136

The principal complications were as follows :—

Onset.	In Patients who recovered.				In Patients who died.
Broncho-pneumonia	—	1
Abscesses	15	—
Tonsillitis	1	—
Cervical adenitis	2	—
Nephritis	2	—
Otorrhoea	7	—
Relapse	4	—
Totals				31	1

31 complications occurred in 29 patients who recovered.

4 deaths occurred among the erysipelas patients :—

Generalised erysipelas	.....	.....	.....	.....	.....	.....	1
Carcinoma of tongue, secondaries in neck and facial erysipelas	.....	.....	.....	.....	.....	.....	1
Epithelioma tonsil ; myocarditis and facial erysipelas	.....	.....	.....	.....	.....	.....	1
Facial erysipelas and broncho-pneumonia	.....	.....	.....	.....	.....	.....	1
Total							4

Table showing age and sex of erysipelas patients.

Age group		0—5	5—10	10—15	15—25	25—45	Over 45	Totals
RECOVERED.								
Males	.....	2	10	1	6	12	19	50
Females	.....	12	3	3	10	26	28	82
DIED.								
Males	.....	1	—	—	—	—	1	2
Females	.....	1	—	—	—	—	1	2
TOTALS	.....	16	13	4	16	38	49	136

Hospital mortality 2.9 per cent.

RUBELLA.

27 cases were admitted with a notified diagnosis of rubella and of these, 14 required revision of diagnosis, as follows :—

Measles	...	...	...	...	5
Scarlet fever	...	...	...	...	5
Erythema	...	...	...	...	2
Protein rash	...	...	...	...	2
Total					14

22 cases were finally diagnosed as rubella.

This figure was made up as follows :—

Notified as rubella	...	...	...	13
Notified as scarlet fever	...	...	...	6
Notified as measles	...	...	...	3
Total				22

All cases recovered without complications.

CHICKENPOX.

61 cases were admitted with a notified diagnosis of chickenpox and of these, 6 required revision of diagnosis as follows :—

Septic spots	...	...	...	3
Pyosalpinx	...	...	...	1
Cerebrospinal meningitis	...	...	...	1
No evidence of any disease	...	...	...	1
Total				6

57 cases were finally diagnosed as chickenpox. This figure was made up of 55 cases notified as chickenpox ; one notified as scarlet fever and one as whooping cough—all recovered.

Concurrent chickenpox and late scarlet fever—1.

ENTERIC FEVER.

27 patients were admitted with a notified diagnosis of enteric fever and of these, 13 required revision of diagnosis as follows :—

Dysentery (B. Morgan No. 1)	.....	.....	.....	.....	1
Eosinophilia (probably due to worms)	.....	.....	.....	.....	1
Food rash	.....	.....	.....	.....	1
Lobar pneumonia	.....	.....	.....	.....	3 (1 died)
No evidence of any disease	.....	.....	.....	.....	2
Enteritis	.....	.....	.....	.....	1
Chronic bronchitis	.....	.....	.....	.....	1
Toxic scarlet fever	.....	.....	.....	.....	1
Cerebrospinal meningitis	.....	.....	.....	.....	1 (died)
Broncho-pneumonia	.....	.....	.....	.....	1
Total					13

In 14 cases diagnosed as enteric fever the causative organism was B. Typhosus in 10, and B. Paratyphosus B. in 4—one of whom died.

Hospital mortality 7.1 per cent.

DYSENTERY.

14 cases were admitted with a notified diagnosis of dysentery and of these, 2 required revision to enteritis.

All cases recovered.

MUMPS.

38 cases were notified as suffering from mumps and of these, 13 required revision of diagnosis, as follows :—

No evidence of mumps	.....	.....	.....	.....	.....	.....	.....	6
Parotid abscess	.....	.....	.....	.....	.....	.....	.....	2
Submaxillary abscess	.....	.....	.....	.....	.....	.....	.....	1
Tuberculous glands of neck and tuberculous peritonitis	.....	.....	.....	.....	.....	.....	.....	1 (died)
Otitis media	.....	.....	.....	.....	.....	.....	.....	2
Retropharyngeal abscess	.....	.....	.....	.....	.....	.....	.....	1
Total								13

In all, 30 cases of mumps were treated in the wards including four notified as diphtheria and one as scarlet fever.

Concurrent infection occurred as follows :—

Concurrent mumps and rubella	...	...	1
Concurrent mumps and scarlet fever	...	...	1
Concurrent mumps and whooping cough...	...	...	1
Total			3

2 children admitted with late mumps and found to be suffering from broncho-pneumonia, died : all other cases finally diagnosed as mumps recovered without complications.

INFLUENZA.

1 case admitted had an acute exacerbation and chronic nephritis—recovered.

MENINGITIS.

8 cases were admitted with a notified diagnosis of meningitis ; 4 required revision as follows :—

No evidence of any disease	...	...	1
Cerebral irritation due to concussion	...	...	1
Central nervous system lesion	...	...	1
Tonsillitis	...	...	1
Total			4

Actually, six cases of meningitis were treated in the wards including one notified as enteric fever and one as chickenpox.

Meningococcal	...	...	...	4 (3 died)
Tuberculous	...	...	...	1 (died)
Pneumococcal	...	...	...	1 (died)

Hospital mortality 83.3 per cent.

PNEUMONIA.

1 case admitted as pneumonia, diagnosis confirmed and child recovered. Notified as enteric 3, one of whom died. Actual cases, 4.

Hospital mortality 25 per cent.

VINCENT'S ANGINA.

1 case admitted, diagnosis confirmed, was also suffering from lymphadenoma, and died.

MISCELLANEOUS OBSERVATIONS.

12 cases were admitted for observation; three were found to be suffering from infectious diseases and are included under these respective diseases, namely, 1 scarlet fever; 1 diphtheria and 1 measles. The diagnosis in the remaining nine was as follows:—

Scalds; haemolytic streptococcal carrier (scarlet fever contact).
 Scalds; haemolytic streptococcal carrier.
 Otorrhoea; scarlet fever and measles contact.
 Herpes zoster.
 Healthy child. Diphtheria contact.
 Appendicitis and peritonitis. Measles contact.
 Septic lesions—palms and soles.
 Pemphigus.
 Septic spots.

SUMMARY OF MISCELLANEOUS DISEASES.

Disease.	Number of cases notified.	Diagnosis revised.	Notified as another disease.	Actual number of cases.	Died.	Hospital Case Mortality.
Measles	464	32	33	465	31	6.7%
Whooping Cough	384	29	4	359	56	15.6%
Erysipelas	147	12	1	136	4	2.9%
Chickenpox	61	6	2	57	—	—
Enteric Fever	27	13	—	14	1	7.1%
Dysentery	14	2	—	12	—	—
Mumps	38	13	5	30	—	—
Meningitis	8	4	2	6	5	83.3%
Pneumonia	1	—	3	4	1	25%
Vincent's angina	1	—	—	1	1	100%
Influenza	1	—	—	1	—	—
Rubella	27	14	9	22	—	—
Miscellaneous conditions	12	3	—	9	—	—
TOTAL	1,185					

OPERATIONS.

	Number.
Mastoidectomy	46
Tonsillectomy and adenoidectomy	36
Incisions	18
Sequestrotomy	7
Rib resection	5
Appendicectomy	4
Laparotomy	1
Mastoidectomy and drainage cerebellar abscess.....	1
Miscellaneous	8
Total	126

The miscellaneous operations include minor incisions, removals of nails, application of plasters, etc.

The surgeons made 71 visits to perform the above operations, and they also attended on several occasions when no operations were performed.

EXAMINATIONS.

STAFF PROPHYLAXIS.

Total	40
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INCIDENCE OF SICKNESS AMONGST THE STAFF.

					Nursing Staff.	Domestic Staff.	Total
Scarlet fever	...	...	...	...	1	—	1
Measles	...	...	...	...	1	—	1
Vincent's Angina	...	...	...	...	1	—	1
Tonsillitis	...	...	...	...	50	3	53
Rheumatism	...	...	...	...	4	—	4
Sciatica	...	...	...	...	—	1	1
Metatarsalgia	...	...	...	...	3	—	3
Synovitis	...	...	...	...	1	—	1
Pneumonia	...	...	...	...	1	—	1
Influenza	...	...	...	...	2	2	4
Pleurisy	...	...	...	...	1	—	1
Asthma	...	...	...	...	—	2	2
Catarrhal Jaundice	...	...	...	...	1	—	1
Adenitis	...	...	...	...	1	—	1
Neuralgia	...	...	...	...	1	—	1
Quinsy	...	...	...	...	2	—	2
Hysteria	...	...	...	...	1	—	1
Otitis media	...	...	...	...	3	—	3
Episcleritis	...	...	...	...	1	—	1
Debility	...	...	...	...	1	—	1
Gastritis	...	...	...	...	—	1	1
Tonsillectomy	...	...	...	...	1	—	1
Enteritis	...	...	...	...	1	—	1
Impetigo	...	...	...	...	1	1	2
Scabies	...	...	...	...	3	—	3
Eczema	...	...	...	...	1	—	1
Furunculosis	...	...	...	...	6	—	6
Popliteal Thrombosis	...	...	...	...	1	—	1
				Totals	90	10	100

The health of the staff was, on the whole, very satisfactory. There was a rise, however, in the incidence of tonsillitis among the nursing staff, being 50 as compared with 23 during 1935; 36 during 1934; 37 during 1933; and 67 during 1932. This increase is probably due to the fact that probationers are now joining the staff at 17 years of age. No fewer than 18 of the 50 cases of tonsillitis among the nurses were under 18 years of age and 30 of the 50 cases occurred within three months of arrival in hospital. January was the worst month with 12 cases of tonsillitis, and November the next with 11 cases.

DISINFECTION.

The following table gives details of the work done during 1936.

Houses disinfected after smallpox	...	...	...	...	...	...	...	0
Houses disinfected after scarlet fever	...	...	...	...	...	...	...	64
Houses disinfected after diphtheria	...	...	...	...	...	...	...	1,507
Houses disinfected after enteric fever	...	...	...	...	...	...	...	39
Houses disinfected after tuberculosis	...	...	...	...	...	...	...	1,712
Houses disinfected after cancer (on request)	...	...	...	...	...	...	...	71
Houses disinfected after miscellaneous diseases (on request)	...	...	...	...	...	...	...	325
Beds disinfected	...	...	...	...	...	...	...	4,239
Miscellaneous articles of clothing and bedding	...	...	...	...	...	...	...	38,563
Library books disinfected	...	...	...	...	...	...	...	1,821
Public conveyances disinfected	...	...	...	...	...	...	...	18

REPORT ON TUBERCULOSIS FOR THE YEAR 1936.

(By Dr. G. B. DIXON, Chief Clinical Tuberculosis Officer).

INSTITUTIONS AND ACCOMMODATION PROVIDED.

The Birmingham Public Health Committee maintains a single Dispensary which serves the whole of the City, and in addition it provides 613 beds for the treatment of pulmonary and other forms of tuberculosis, and for the observation and investigation of suspected cases of tuberculosis.

The Anti-Tuberculosis Centre is centrally situated in the city, and is open for five days during the week and on Saturdays for half the day. A small number of sessions is reserved for patients attending for treatment, supervision and observation, but most of the sessions are set apart for consultations and examinations. In addition, many consultations and examinations are undertaken at the homes of patients by members of the medical staff. The medical staff of the Dispensary, with one exception, is also responsible for the medical work of the various municipal sanatoria.

The beds for treatment, etc., are provided in four sanatoria and are allocated in the following way :—

YARDLEY GREEN ROAD SANATORIUM :—

		Beds.	Total.	Grand Total.
Adults : Male :	Observation	10		
	Treatment, intermediate and advanced cases of all forms of tuberculosis	156	166	
,, Female :	Observation	8		
	Treatment, early and intermediate cases of all forms of tuberculosis	44	52	
Children :	Observation	18		
	Treatment, all stages and for all forms of tuberculosis	101	119	337

WEST HEATH SANATORIUM :—

Adults : Male :	Advanced and intermediate cases of pulmonary tuberculosis	24		
	Female : Ditto	96		120

SALTERLEY GRANGE SANATORIUM :—

Adults : Male :	Early cases of pulmonary tuberculosis	38		
	Female : Ditto	30		68

ROMSLEY HILL SANATORIUM :—

Adults : Male :	Early and intermediate cases of pulmonary tuberculosis	57		
	Female : Ditto	31		88
				613

The treatment undertaken in the different sanatoria includes lung collapse by means of artificial pneumothorax, treatment by gold salts, vaccines, etc., etc. In a small number of cases different forms of surgical treatment for patients suffering from pulmonary tuberculosis have been undertaken, such as thoracoplasty, and severance of adhesions in cases of artificial pneumothorax ; the latter operation has given satisfactory results.

At the Yardley Green Road Sanatorium which is situated $3\frac{1}{2}$ miles from the centre of the city, the patients are housed in eight detached pavilion. The kitchens, domestic stores, nurses' home, and medical officers' apartments, are included in a large central building.

The cooking is undertaken in one kitchen, and food is conveyed to the four dining halls by means of electric trolleys.

The sanatorium buildings include an administrative office block, in which there is a laboratory. In addition, there are occupational therapy shops, a schoolroom, and three recreation halls, a department for X-ray work, and a section for artificial light treatment, which is used both for in-patients and out-patients. A school-room; a recreation hall, divided into two parts for women and children; a new pavilion for non-pulmonary cases of tuberculosis; a surgical block including a theatre and recovery rooms, and a new mortuary have been completed, or are approaching completion.

The clinical blocks at West Heath Sanatorium, which is situated 8 miles from the centre of the city, consist of one pavilion for male cases and four pavilions for female cases, two of which have recently been re-constructed and fitted with large verandahs. There has recently been built a rest room for female patients with chronic disease, who are infective and cannot be properly isolated at home. Many of them remain in the West Heath Sanatorium hospital for prolonged periods. In addition there is a laboratory, and an occupational therapy shop.

Romsley Hill Sanatorium, which is situated 12 miles from the centre of the city, is a two storey building, which provides a number of cubicles for one, two, three, four and six beds. There are also several wards for ten and eleven beds. In addition, there are two recreation rooms, one for men and one for women, and the sanatorium has two occupational therapy shops, and a laboratory.

Salterley Grange Sanatorium, situated in the Cotswolds, 40 miles from the centre of the city, consists of a large administrative block containing residential quarters for the staff, and in addition, a kitchen, stores, and dining hall for the patients. There are two recreation rooms for patients, and a laboratory. The accommodation for patients includes forty single bed rooms, eleven rooms accommodating two beds, and two rooms which accommodate three patients.

In addition to the patients admitted to the City Sanatoria, during the year there were 11 adult males, 9 adult females, and 136 children suffering from the non-pulmonary forms of tuberculosis, who were admitted to various hospitals, including the Royal Cripples' Hospitals, Moseley Hall, and the Children's Hospital, etc., for the treatment of non-pulmonary forms of tuberculosis. A grant towards the maintenance of these patients was made by the Public Health Committee.

During the year, the home visits made by the medical staff numbered 1,123. The personal consultations between members of the medical staff and practitioners in the city, during the year was 262, in addition there were 7,064 other consultations with medical practitioners during the year.

Many persons attended at the City Sanatorium, Yardley Green Road, as out-patients, for artificial light treatment; during the year under review, the number of attendances for this purpose was 12,328.

Admissions to the Sanatoria are decided upon only after examination at the Centre, or at the patients' homes, and the sanatorium to which patients are sent depends on the condition of the disease, etc. On returning from Sanatoria, patients are re-examined at the Centre, and many old patients who discontinue treatment, are re-examined from time to time.

The Anti-Tuberculosis Scheme includes 36 beds at Yardley Green Road Sanatorium set apart for the purpose of observation and investigation:—

- 10 are reserved for boys.
- 10 are reserved for adult males.
- 8 are reserved for adult females.
- 8 are reserved for female children.

The provision of these beds facilitates a correct diagnosis, which would in some cases be difficult to arrive at without them.

The scheme is also fortunate in having a large number of beds set apart for the care and treatment of the "hospital" type of case, the male patients being admitted to Yardley Green Road Sanatorium, and the females to West Heath Sanatorium. These beds are essential on humanitarian grounds, and in addition, are a prophylactic asset in connection with the public health work of the City. For this reason, it is desirable that as large a percentage as possible of the annual deaths occurring in the city from tuberculosis, should take place in beds controlled by the public health department.

During the period under review, there were 805 deaths in the city from all forms of tuberculosis, and of this number no less than 367 or 45.5 per cent. occurred in beds in the municipal sanatoria and hospitals controlled by the Public Health Committee. A small number of beds is reserved in one of the Municipal Hospitals for tuberculous patients who require obstetric care.

The two subsequent tables show the reductions that have taken place in the death rate from tuberculosis in all forms, and in the pulmonary and non-pulmonary varieties separately, in this City. In the first table, two hemi-decades with an interval of ten years have been chosen for comparison. In the second table, two periods of three years, with an interval of ten years between them, have been compared, to show the decrease that has occurred in the incidence rate for tuberculosis, as revealed by notification. Amongst the deaths certified as being caused by tuberculosis during the year were those of seventy-two persons who had been notified as suffering from this disease ten or more years ago, and seventy-five deaths from tuberculosis were certified during the year amongst persons who had been notified five or more years ago.

Quite a number of those suffering from tuberculosis who receive treatment recover from the disease; last year three hundred and fifty-seven persons who had recovered were removed from the register, and in one thousand and forty instances the disease was in an arrested state, although the individuals were being kept under supervision as a precautionary measure. At present there are five thousand, six hundred and seven known cases of tuberculosis in the City, being in the proportion of approximately five cases to one thousand of the population.

The mean mortality from Tuberculosis for two comparable 5 year periods has been as follows :

ALL FORMS OF TUBERCULOSIS AT ALL AGES.

		Death rate per 1,000.		
5 years	1922—1926	1.10		
„	1932—1936	0.85	Reduction	22.7%

PULMONARY TUBERCULOSIS AT ALL AGES.

5 years	1922—1926	.96		
„	1932—1936	.76	Reduction	20.0%

NON-PULMONARY TUBERCULOSIS, AT ALL AGES.

5 years	1922—1926	.15		
„	1932—1936	.09	Reduction	40.0%

These figures show a very substantial decrease in the mortality during the past 14 years.

The new cases of Tuberculosis (all forms) also show a considerable reduction. To illustrate this, two 3 year periods are compared, i.e., 1924-1926 with 1934-1936.

NEW CASES OF TUBERCULOSIS.

		Incidence per 1,000		
3 years	1924—1926	1.96		
„	1934—1936	1.21	Reduction	38%

The notified cases of Tuberculosis showed a decrease during the year 1936, as compared with the year 1935, for both the pulmonary and non-pulmonary varieties.

The number of deaths for all forms of tuberculosis showed a decrease when compared with the previous year.

TUBERCULOSIS (all forms).

		New Cases	Rate per 1,000	Deaths	Death-rate per 1,000
1901-1905 (Average)		—	—	1,384	1.78
1906-1910	„	—	—	1,235	1.51
1911-1915	„	—	—	1,307	1.51
1916-1920	„	3,343	3.73	1,261	1.40
1921-1925	„	2,060	2.20	1,046	1.12
1926-1930	„	1,588	1.63	1,016	1.04
1931-1935	„	1,459	1.43	928	0.91
1922	... ..	1,961	2.12	1,049	1.13
1923	... ..	2,166	2.32	1,006	1.08
1924	... ..	2,129	2.22	1,055	1.10
1925	... ..	1,797	1.89	1,083	1.14
1926	... ..	1,704	1.78	1,024	1.06
1927	... ..	1,607	1.66	1,017	1.05
1928	... ..	1,606	1.64	965	0.99
1929	... ..	1,538	1.57	1,066	1.09
1930	... ..	1,483	1.51	1,008	1.03
1931	... ..	1,679	1.66	1,070	1.06
1932	... ..	1,517	1.49	954	0.93
1933	... ..	1,486	1.45	983	0.96
1934	... ..	1,398	1.36	814	0.79
1935	... ..	1,213	1.17	817	0.79
1936	... ..	1,136	1.10	805	0.78

The relative prevalence and mortality from pulmonary and other forms of tuberculosis shown separately is indicated in the two subsequent tables:—

PULMONARY TUBERCULOSIS.

		New Cases	Rate per 1,000	Deaths.	Death-rate per 1,000
1901-1905 (Average)		—	—	1,039	1.34
1906-1910	„	—	—	947	1.16
1911-1915	„	—	—	1,057	1.22
1916-1920	„	2,936	3.27	1,062	1.18
1921-1925	„	1,739	1.86	903	.96
1926-1930	„	1,327	1.36	881	.91
1931-1935	„	1,225	1.20	824	.80
1919	... ..	2,704	2.92	1,019	1.10
1920	... ..	2,609	2.87	843	.93
1921	... ..	1,969	2.15	890	.97
1922	... ..	1,669	1.80	899	.97
1923	... ..	1,785	1.91	860	.92
1924	... ..	1,780	1.85	934	.97
1925	... ..	1,491	1.57	930	.98
1926	... ..	1,421	1.48	905	.94
1927	... ..	1,343	1.39	857	.89
1928	... ..	1,361	1.39	840	.86
1929	... ..	1,270	1.30	918	.94
1930	... ..	1,242	1.26	884	.90
1931	... ..	1,397	1.38	932	.92
1932	... ..	1,266	1.24	849	.83
1933	... ..	1,250	1.22	874	.85
1934	... ..	1,187	1.15	732	.71
1935	... ..	1,023	.99	732	.71
1936	... ..	962	.93	734	.71

The incidence rates for the pulmonary and non-pulmonary forms of tuberculosis during the year 1936 are the lowest yet recorded in the city.

NON-PULMONARY TUBERCULOSIS.				Death-rate
		New Cases.	Rate per 1,000	per 1,000
1901-1905 (Average)		—	—	.45
1906-1910	„	—	—	.35
1911-1915	„	—	—	.29
1916-1920	„	407	.45	.22
1921-1925	„	321	.34	.15
1926-1930	„	260	.27	.13
1931-1935	„	234	.23	.10
1919	...	412	.45	.18
1920	...	365	.40	.17
1921	...	278	.30	.16
1922	...	292	.32	.16
1923	...	381	.41	.16
1924	...	349	.36	.13
1925	...	306	.32	.16
1926	...	283	.30	.12
1927	...	264	.27	.17
1928	...	245	.25	.13
1929	...	268	.27	.15
1930	...	241	.25	.13
1931	...	282	.28	.14
1932	...	251	.25	.10
1933	...	236	.23	.11
1934	...	211	.21	.08
1935	...	190	.18	.08
1936	...	174	.17	.07

The cases notified in 1936 comprise the varieties shown in the next table, which also indicates the number of cases in which information was obtained from the death certificates alone without previous notifications.

The total number of deaths is also shown.

	New Cases Notified in 1936.	Cases not Notified before Death.	Total Deaths.
Pulmonary Tuberculosis	962	35	734
Tubercular Meningitis	21	5	25
Tubercle of the Abdomen	26	3	10
Tubercle of the Spinal Column	16	4	8
Tubercle of Joints and Bones other than Spine	32	1	3
Disseminated tuberculosis	11	6	19
Tubercle of the Glands and other parts	68	2	6

The number of instances in which tuberculosis was not notified prior to death was fifty-six for all forms of the disease, thirty-five were of the pulmonary type, and twenty-one were non-pulmonary.

Thirty-one were only diagnosed as the result of autopsies. Sixteen died in their homes and forty in hospitals; five were the subjects of a Coroner's enquiry.

In two instances cancer was also present, and in one case encephalitis lethargica was associated; in one individual the immediate cause of death was an accident. On two occasions death resulted from post-operative haemorrhage. Diabetes mellitus and silicosis were diseases also associated on two occasions. In twenty-eight of these individuals the age at death was fifty years and over.

Had so many of these persons not died in hospitals the number of autopsies would have been definitely fewer and the tuberculosis would probably have escaped detection in quite a large proportion.

After death notifications cannot invariably be accepted as evidence of ineffective diagnosis, or of imperfect notifications, during the lifetime of the patient; they may possibly bear some relationship to the hospitalisation of the area in which they occur, and to the activities of local pathological departments.

In a number of cases tuberculosis was associated with other grave diseases and may not always have been the primary cause of death.

The home contacts of some of these persons were investigated, and some are being kept under supervision, which was an advantage to a number of children and adolescents who might not otherwise have been dealt with.

In the following table are shown the number of some forms of tuberculosis notified during the year, with the sex and age period at which they occurred.

CASES OF TUBERCULOSIS NOTIFIED DURING THE YEAR 1936.

CLASSIFIED ACCORDING TO SEX AND AGE.

	0—	1—	2—4	5—9	10—14	15—19	20—24	25—34	35—44	45—54	55—64	65—74	75 up.	Totals.
	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.
Pulmonary tuberculosis	3 4	2 2	14 11	13 10	6 13	39 70	58 69	110 90	103 49	119 48	83 23	14 6	2 1	566 396
Tubercular meningitis	3 —	3 2	1 2	1 2	— 3	1 1	1 —	— —	— 1	— —	— —	— —	— —	10 11
Tuberculosis of peritoneum and intestines	1 —	— —	1 1	2 1	2 2	2 1	— 1	1 6	— 2	— 1	2 —	— —	— —	11 15
Other forms of tuberculosis	1 1	1 3	6 6	7 6	15 8	9 10	6 5	5 10	7 4	7 5	2 2	— —	1 —	67 60

In the subsequent table are shown the number of notifications and the number of deaths arranged for males and females according to the various age groups, relating to both pulmonary and non-pulmonary forms of tuberculosis :—

TUBERCULOSIS—1936.							
				Male.		Female.	
				Cases.	Deaths.	Cases.	Deaths.
PULMONARY.							
0—	.....	.....	.....	3	2	4	4
1—	.....	.....	.....	2	1	2	2
2—4	.....	.....	.....	14	3	11	2
5—14	.....	.....	.....	19	1	23	3
15—24	.....	.....	.....	97	49	139	88
25—44	.....	.....	.....	213	159	139	118
45—64	.....	.....	.....	202	196	71	73
65—74	.....	.....	.....	14	21	6	7
75 (up)	.....	.....	.....	2	5	1	—
				566	437	396	297
				Cases, Total	.....	962	
				Deaths, Total	.....	734	
NON-PULMONARY.							
0—	.....	.....	.....	5	4	1	2
1—	.....	.....	.....	4	4	5	2
2—4	.....	.....	.....	8	3	9	4
5—14	.....	.....	.....	27	9	22	9
15—24	.....	.....	.....	19	5	18	4
25—44	.....	.....	.....	13	2	23	9
45—64	.....	.....	.....	11	4	8	6
65—74	.....	.....	.....	—	2	—	1
75 (up)	.....	.....	.....	1	—	—	1
				88	33	86	38
				Cases, Total	.....	174	
				Deaths, Total	.....	71	
				GRAND TOTALS, Cases	1,136		
				Deaths	805		

The tuberculosis case-rates and death-rates in other towns for all forms of tuberculosis, are given in the following tables :—

TUBERCULOSIS (All Forms).

Comparative Figures in 11 Largest Towns.

	Case-rate per 1,000.	Death-rate per 1,000.
London	1.5	0.8
Glasgow	2.1	1.1
Birmingham	1.1	0.8
Liverpool	2.4	1.0
Manchester	1.6	1.0
Sheffield	2.4	0.7
Leeds	1.4	0.8
Edinburgh	1.6	0.8
Bristol	1.4	0.8
Hull	1.6	1.0
Bradford	1.3	0.7

It will be seen that Birmingham compares favourably with other great towns.

TUBERCULOSIS IN THE CITY WARDS.

The distribution of cases of tuberculosis over the wards of the City is shown in the next tables :—

		Case-rate per 1,000 in 1936			
		Pulmonary	Non-Pulmonary	Total	
Central Wards	St. Paul's	1.22	0.17	1.39	Average 1.59
	St. Mary's	1.53	0.18	1.71	
	Duddeston and Nechells	1.27	0.06	1.33	
	St. Bartholomew's.....	1.53	0.16	1.69	
	St. Martin's and Deritend	1.54	0.20	1.74	
	Market Hall	1.57	0.25	1.82	
	Ladywood	0.92	0.53	1.45	
Middle Wards	Lozells	0.91	0.24	1.15	Average 1.14
	Aston	0.91	0.15	1.06	
	Washwood Heath	0.55	0.13	0.68	
	Saltley	0.90	0.21	1.11	
	Small Heath	0.65	0.17	0.82	
	Sparkbrook.....	1.27	0.20	1.47	
	Balsall Heath	1.23	0.15	1.38	
	Edgbaston	0.59	0.22	0.81	
	Rotton Park	1.38	0.23	1.61	
Outer Ring	All Saints'	1.23	0.13	1.36	Average 0.87
	Soho	1.00	0.21	1.21	
	Sandwell	0.43	0.24	0.67	
	Handsworth	0.97	0.07	1.04	
	Perry Barr	0.93	0.21	1.14	
	Erdington	1.23	0.11	1.34	
	Gravelly Hill	0.68	0.16	0.84	
	Bromford	0.97	0.18	1.15	
	Stechford	0.76	0.12	0.88	
	Yardley	0.95	0.11	1.06	
	Acock's Green	0.68	0.11	0.79	
	Hall Green	0.38	0.21	0.59	
	Sparkhill	0.40	0.06	0.46	
	Moseley and King's Heath	0.61	0.13	0.74	
	Selly Oak	0.88	0.07	0.95	
	King's Norton	0.47	0.03	0.50	
	Northfield	0.80	0.28	1.08	
	Harborne	0.30	0.08	0.38	

The average for the Central Wards is the same as that for 1935 but there is a reduction in the Middle Wards and Outer Ring.

The figures for 1935 are 1.18 for the Middle Wards and 0.96 for the Outer Ring.

CASES OF TUBERCULOSIS NOTIFIED DURING THE YEAR 1936, CLASSIFIED ACCORDING TO WARDS.

DISEASE	Accock's Green	All Saints'	Aston	Balsall Heath	Bromford	Duddeston and Nechells	Edgbaston	Erdington	Gravelly Hill	Hall Green	Handsworth	Harborne	King's Norton	Ladywood	Lozells	Market Hall	Moseley and King's Heath	Northfield	Perry Barr	Rotton Park	Saint Bartholomew's	St. Martin's and Deritend	St. Mary's	St. Paul's	Satley	Sandwell	Selly Oak	Small Heath	Soho	Sparkbrook	Sparkhill	Stechford	Washwood Heath	Yardley	Not located	City
Pulmonary Tuberculosis	24	37	30	40	27	45	16	35	21	15	26	8	15	26	26	31	24	31	40	43	49	55	43	37	26	9	26	19	24	38	13	19	17	26	1	962
Tubercular Meningitis	—	—	—	—	1	2	1	—	1	1	—	—	—	1	—	2	2	1	1	3	—	1	—	—	2	—	—	—	—	—	1	—	—	—	—	21
Tuberculosis of peritoneum and intestines	—	2	—	—	—	—	1	—	1	1	2	—	—	—	—	2	—	1	—	2	—	1	1	1	—	2	1	1	1	2	1	1	1	1	—	26
Tuberculosis of spinal column.....	1	—	—	—	2	—	—	1	—	—	—	—	—	1	1	—	—	3	1	1	1	—	1	1	—	1	—	—	1	—	—	—	—	—	—	16
Tuberculosis of joints	1	1	2	1	1	—	1	—	—	2	—	—	—	2	4	1	1	—	1	1	3	—	—	—	—	—	1	3	3	1	—	1	1	1	—	32
Tuberculosis of other organs	1	1	3	4	1	—	3	—	3	3	—	2	1	10	1	—	2	5	5	—	1	4	2	3	4	1	—	1	—	2	—	1	2	2	—	68
Disseminated tuberculosis	1	—	—	—	—	—	—	2	—	1	—	—	—	1	1	—	—	1	1	—	—	1	1	—	—	1	—	—	—	—	—	—	—	—	—	11

WORK OF THE TUBERCULOSIS VISITORS.

There are ten nurses engaged as tuberculosis visitors in the Department, each having charge of a definite part of the City. It is the duty of these visitors to make enquiry into every notified case of tuberculosis and afterwards to keep in touch by periodical visiting and carry out any aftercare, etc., that may be needed.

At the end of 1936 there were 5,607 cases of tuberculosis on the current register all of which have to be visited at more or less regular intervals. The visits paid last year were as follows:—

Primary visits (to new cases) ...	...	1,357
Routine re-visits ...	...	19,004
Special visits and re-visits ...	...	8,542

At the first visit to new cases, it was found that 613 patients out of the 1,357 were sharing a bed with some other person; while 389 shared a bedroom but had a separate bed. Efforts are always made to get a separate bedroom or if this out of the question at least a separate bed for every patient. Unfortunately, owing to lack of accommodation, or unwillingness on the part of the patient, this is not always possible.

It is the duty of these visitors to bring to the notice of the Department every case of overcrowding in relation to pulmonary tuberculosis for representation to the Estates Committee for special treatment, if considered advisable by the medical staff.

ACTION UNDER LEGAL ENACTMENTS.

No action was necessary during the year under the Public Health (Prevention of Tuberculosis) Regulations, 1925, relating to tuberculous employees in the milk trade, nor was section 62 of the Public Health Act, 1925, employed to remove any patient compulsorily to a sanatorium.

DISINFECTION.

The disinfection of 1,697 houses was undertaken during the year where some member of the family had suffered or died from tuberculosis, or changed his or her address.

CARE WORK.

A considerable amount of care work is undertaken from the Centre in Great Charles Street.

It is found that such work can be usefully fitted into the dispensary organisation if executive officers are interested, tactful, and alert, and have the personality and experience which goes far in making a success of care work.

During the year 1936 the tuberculosis health visitors made 28,903 visits to the homes of patients, and care work was responsible for many of them, in addition 1,123 visits were paid to the homes of patients by members of the medical staff, many of them for a similar purpose.

In the same period 117 persons received beds and bedding on loan or hire-purchase from the department. Twenty-five sleeping chalets were also loaned to patients; opportunity for the use of these chalets is largely governed by the fitness of the patient to sleep or rest for prolonged periods out of doors, unattended, and by the existence of a suitable site. Beds, bedding and sleeping chalets are loaned in order to provide more suitable accommodation for the patient, and to lessen as far as possible, the risk of infection to other members of the family.

Through the representations of the care department we obtained better housing conditions, or promises of the same, through the Estates Department for the families of ninety-seven of our patients. Grants of clothing and other personal items were made to patients in some two hundred and eleven instances. Also, a large number of recommendations for relief and assistance were made to the Public Assistance Department, and to various charitable organisations both within and without the city.

The care department has been instrumental in assisting the families of our patients, and patients themselves, to obtain suitable medical treatment for ailments other than tuberculosis, and grants of food have been made to one hundred and thirty patients.

To prevent overlapping between ourselves and the Public Assistance Department, a note is sent from the Centre each week to the Public Assistance Department informing the latter of any grants made to our patients.

In addition to the activities already outlined the department has helped patients to obtain dentures, air-rings and other nursing utensils, surgical appliances and splints, and has assisted in some instances in the provision of meals. It has obtained money to pay bus and tram fares to enable patients to procure treatment. In the past, we have helped to provide such items as a wig, an artificial eye, and an artificial leg, all of which have aided our patients to obtain employment.

In discussing care work it must be recognised that the benefit from treatment in Sanatoria, etc., is frequently diminished or lost because a patient has to return to unsatisfactory conditions of work and living, or to resume work too soon. It should also be stressed that the tuberculous individual is a damaged life, and however good the results of treatment may have been, the sufferer can very seldom be regarded as having a one hundred per cent. economic value to the community. Unless the patient and those responsible for his care realise this fact, and work for the re-adaptation of his subsequent life and employment on this assumption, tragedy will result. Unfortunately, trade conditions are such that there is practically no room in the industrial market for the partially disabled person suffering from tuberculosis, where he would have to work eight hours daily in what is often an unsuitable environment, under competitive strain. On the other hand, a certain number of patients who are able to work four or six hours daily in suitable environment, at their own pace, are debarred from doing so by lack of opportunity. Something may be done to help these patients by way of workshops attached to suburban sanatoria, at which the ex-patient can attend daily, and work at his own pace, in selected surroundings, for a limited number of hours daily, under medical supervision. Under these circumstances patients can usually obtain a suitable mid-day meal, practically at cost price, or gratis. An arrangement such as this exists at the Yardley Green Road Sanatorium, and quite an appreciable sum of money has been paid out weekly during the year resulting from the sale of patients' work. One of the difficulties of such a scheme is that unless machinery is installed, properly trained and skilled hand-workers are required, and these take a long time to train before they are sufficiently skilled to earn even a modest wage.

The close intercommunication existing between the Tuberculosis Section and the School Medical Officer's Department, and the Infant Welfare Medical Officer, has provided opportunities for the Care Committee to function in a wider sphere than would have been possible otherwise.

ANTI-TUBERCULOSIS CENTRE.

ATTENDANCES AND EXAMINATIONS.

The total number of attendances at the Anti-Tuberculosis Centre during the year 1936, made by patients for the purpose of diagnosis, consultation, observation, advice and treatment, was 34,936.

This total is made up of 2,360 attendances for supervision, observation, and advice; 8,954 attendances for examination; 9,053 attendances for X-ray examination; and 14,569 attendances in the artificial light departments. The X-ray work included 6,750 screen examinations, and 2,303 films.

Attendances for supervision, observation and treatment	.....	.....	.....	.....	.....	.....	2,360
Attendances for consultation and examination	.....	.....	.....	.....	.....	.....	8,954
Attendances for Light Treatment :							
Yardley Green Road Sanatorium	.....	.....	.....	.....	.....	.....	12,328
151, Great Charles Street	.....	.....	.....	.....	.....	.....	2,241
X-ray examinations (screens)	.....	.....	.....	.....	.....	.....	6,750
X-ray examinations (films)	.....	.....	.....	.....	.....	.....	2,303
							<hr/> 34,936 <hr/>

During the year 1936, some 962 new cases of pulmonary tuberculosis were notified to the Medical Officer of Health, and of this number 866 or 90 per cent. were examined at the Centre. There were also 174 cases of non-pulmonary tuberculosis notified during the year, of which 111 or 63.8 per cent. were examined at the Centre.

The number of patients on the Dispensary Register on 1st January was 5,164: the number of persons transferred to other areas during the year, and the cases "lost sight of" numbered 260, the number transferred to us from other areas and the "lost sight of" cases returned was 130.

At the end of the year 953 insured persons were receiving domiciliary treatment at the recommendation of the medical staff.

TREATMENT RECOMMENDED.

In the following table are set out the treatments recommended for patients examined at the Anti-Tuberculosis Centre during the year.

	First Examinations.			Re-examinations.	
	Newly notified.	Contacts.	Suspects.	Old Cases.	Suspects or Contacts.
Sanatorium treatment	511	39	276	405	15
Dispensary treatment	2	1	2	21	—
Supervision	15	3	9	893	2
Out-patient light treatment	6	4	6	27	—
Domiciliary treatment	97	2	43	1,562	1
No treatment required	223	1,166	1,567	280	897
	854	1,215	1,903	3,188	915

The table above shows that a large percentage of new cases notified during the year received a primary period of Sanatorium treatment. This is an advantage to the patient inasmuch as his physical condition is benefited, and he acquires practical experience of the treatment which it would be to his advantage to carry out in a modified form in his own home afterwards.

CLASSIFICATION OF PATIENTS ACCORDING TO GROUP OF DISEASE.

The following tables show the classification of the patients examined according to Group of disease; adults and children are shown separately.

ADULTS.

	First Examinations.			Re-examinations.	
	Newly notified.	Contacts.	Suspects.	Old Cases.	Suspects or Contacts.
Group I	67	7	69	509	1
Group II	261	9	146	1,486	2
Group III	233	4	74	515	1
Group IV	45	3	12	167	—
No treatment required	164	477	1,151	48	192
	770	500	1,452	2,725	196

CHILDREN.

	First Examinations.			Re-examinations.	
	Newly notified.	Contacts.	Suspects.	Old Cases.	Suspects or Contacts.
Group I	8	18	18	212	10
Group II	3	4	1	77	4
Group III	3	—	1	10	—
Group IV	17	3	9	137	1
No treatment required	53	690	422	27	704
	84	715	451	463	719

In certain instances patients included in the various groups are suffering from other forms of tuberculosis in addition to pulmonary, but for convenience are classified as pulmonary cases, when that type of the disease is present in association with other types.

In the succeeding tables are set out briefly some details of those who were referred to us as contacts and suspects. Amongst those classified here as suspects are many who had been living in contact with known cases of tuberculosis, and who were, therefore, possibly referred to us mainly for this reason.

The contacts have been divided into various age groups, and they have also been arranged to show the numbers in each group that came from homes where there had been contact with patients suffering from tuberculosis associated with a positive or a negative sputum.

SUSPECTS EXAMINED DURING THE YEAR 1936.

Total = 1,903.

Definitely tuberculous	330
No signs of tuberculosis	1,573

CONTACTS EXAMINED DURING THE YEAR 1936.

AGES.	Found <i>to be</i> suffering from Tuberculosis.	Found <i>not to be</i> suffering from Tuberculosis.	TOTALS.
<i>0 to 5 years.</i>			
Contacts to patients with sputum containing tubercle bacilli	12 or 7.4%	150 or 92.6%	162
Contacts to patients with negative sputum	4 or 3.9%	99 or 96.1%	103
<i>6 to 10 years.</i>			
Contacts to patients with sputum containing tubercle bacilli	4 or 2.4%	161 or 97.6%	165
Contacts to patients with negative sputum	1 or .9%	113 or 99.1%	114
<i>11 to 15 years.</i>			
Contacts to patients with sputum containing tubercle bacilli	3 or 2.3%	125 or 97.7%	128
Contacts to patients with negative sputum	2 or 2.7%	72 or 97.3%	74
<i>16 years and over.</i>			
Contacts to patients with sputum containing tubercle bacilli	15 or 4.9%	293 or 95.1%	308
Contacts to patients with negative sputum	7 or 4.3%	154 or 95.7%	161
Grand Totals	48	1,167	1,215

During the six years 1931 to 1936 inclusive 5,634 contacts were examined. 3,572 of these were contacts to patients whose sputum was known to contain tubercle bacilli, the remaining 2,062 were contacts to patients in whose sputum tubercle bacilli were not demonstrated, or to patients from whom sputum could not be obtained. From birth to fifteen years of age the contacts are classified in hemi-decades. It will be seen that in every age period the largest numbers found to be suffering from tuberculosis were detected amongst those who were contacts to positive sputum patients, and the largest percentage of contacts with definite disease was found in the first and second hemi-decades under 15 years. Over fifteen years of age, the percentage of definite cases of

tuberculosis detected amongst contacts is greater than in any of the earlier hemi-decades, whether association occurred with positive or negative sputum patients. These details are shown in the following table :—

CONTACTS EXAMINED DURING THE YEARS 1931 TO 1936 INCLUSIVE.

AGES.		Found <i>to be</i> suffering from Tuberculosis.	Found <i>not to be</i> suffering from Tuberculosis.	TOTALS.
<i>0 to 5 years.</i>				
Contacts to patients with sputum containing <i>tubercle bacilli</i>		65 or 6.8%	897 or 93.2%	962
Contacts to patients with <i>negative sputum</i>		25 or 3.8%	628 or 96.2%	653
<hr/>				
<i>6 to 10 years.</i>				
Contacts to patients with sputum containing <i>tubercle bacilli</i>		41 or 5.4%	725 or 94.6%	766
Contacts to patients with <i>negative sputum</i>		17 or 3.4%	487 or 96.6%	504
<hr/>				
<i>11 to 15 years.</i>				
Contacts to patients with sputum containing <i>tubercle bacilli</i>		28 or 4.3%	620 or 95.7%	648
Contacts to patients with <i>negative sputum</i>		9 or 3.2%	269 or 96.8%	278
<hr/>				
<i>16 years and over.</i>				
Contacts to patients with sputum containing <i>tubercle bacilli</i>		90 or 7.5%	1,106 or 92.5%	1,196
Contacts to patients with <i>negative sputum</i>		32 or 5.1%	595 or 94.9%	627
<hr/>				
Grand totals		307 or 5.4%	5,327 or 94.6%	5,634

A number of child contacts who presented no definite evidence of active tuberculosis after a primary investigation are given supervision for a number of years, including periodic examinations, the extent and frequency of which are determined by circumstances depending upon social conditions, continuance of exposure to infection, and the occurrence of such intercurrent diseases as measles, whooping cough, broncho-pneumonia, pleurisy and phlyctenular conjunctivitis. Re-examinations may be undertaken at longer intervals than would otherwise be desirable where there is good liaison, including regular exchange of information between the tuberculosis department, and the infant welfare and education departments, and where there is satisfactory co-operation with the general practitioner.

The initial investigation of contacts must be both comprehensive and intensive if it is to be effective; the entire household should be the unit for primary investigation, and initial examinations must never be incomplete or undertaken in a haphazard way as so much will depend upon the thoroughness of the investigation, the correct assessment of findings, and the adoption of measures designed to protect those exposed to continuous and massive doses of infection.

Our figures for contact examinations certainly show the necessity for this phase of dispensary work, and they further suggest that tuberculosis is more frequently discovered amongst child contacts to positive sputum patients than amongst those in contact with negative sputum patients.

The investigation of contacts at the clinic has included a careful physical and radioscopic examination, followed in many instances by an X-ray film. Frequently, a few weeks spent in an observation bed at the sanatorium have also been devoted to investigation. An intradermal tuberculin test is applied to practically all children under ten years of age examined as contacts, and to a number of older patients when necessary.

During the year, 892 patients were tested with tuberculin, the Mantoux method being used, and in a large majority of cases the test was commenced with the injection of 0.1 mg. of O.T.

In the subsequent table are given some details about the intradermal tests undertaken during the years 1935 and 1936, which numbered 1,633. 638 were made on children aged 0-5 years, and of these 49.5 per cent. were positive. 844 tests were made on children between the ages of 6-10 years, of which 44.9 per cent. were positive. 151 were undertaken on persons of eleven years of age and over, amongst these 64.9 per cent. were positive.

INTRADERMAL TESTS, 1935/1936.

Ages		Males	Females	Totals
0 to 5 years	Positive	163	153	316 or 49.5%
	Negative	184	138	322
6 to 10 years	Positive	203	176	379 or 44.9%
	Negative	253	212	465
11 years and over	Positive	58	40	98 or 64.9%
	Negative	19	34	53

FAECES EXAMINED.

If patients in the sanatorium, either for treatment or diagnosis could produce no sputum, or where sputum was persistently negative for tubercle bacilli, faeces were examined for acid and alcohol fast bacilli.

In a series of 3,016 examinations of faeces for tubercle bacilli from patients at ages of ten years and upwards, with no sputum, or a sputum that was persistently negative for tubercle bacilli, 101 or 3.3 per cent. were found to contain acid and alcohol fast bacilli. In 33 of these "no sputum" persisted, in 61 the sputum eventually became positive, and in seven instances the sputum remained persistently negative.

Sputum when present was examined by various methods, at weekly intervals whilst the patient was in the sanatorium, and in no instance were the faeces examined before the patient had been in sanatorium for at least one week, during which only pasteurised milk was consumed.

GASTRIC LAVAGES.

In children under ten years of age, who rarely expectorate, sputum for examination is not always easy to obtain. To meet this, the contents of a stomach lavage, taken first thing in the morning from a fasting stomach, were investigated for acid fast bacilli, whether or not these were found on smear examination alone, some of the centrifuged deposit was injected into a guinea-pig.

To date, we have examined 588 stomach lavages, of which 49 or 8.3 per cent. gave a positive result for tubercle bacilli. Only five of these were positive on smear examination, the remaining 44 were only discovered as the result of a guinea-pig injection.

Ages.		Contact.	Suspect.	Notified.	Total.
0-3 years	... ..	9	4	3	16
4-6 years	... ..	13	4	3	20
7-10 years	... ..	8	4	1	13
		—	—	—	—
		30	12	7	49
		—	—	—	—

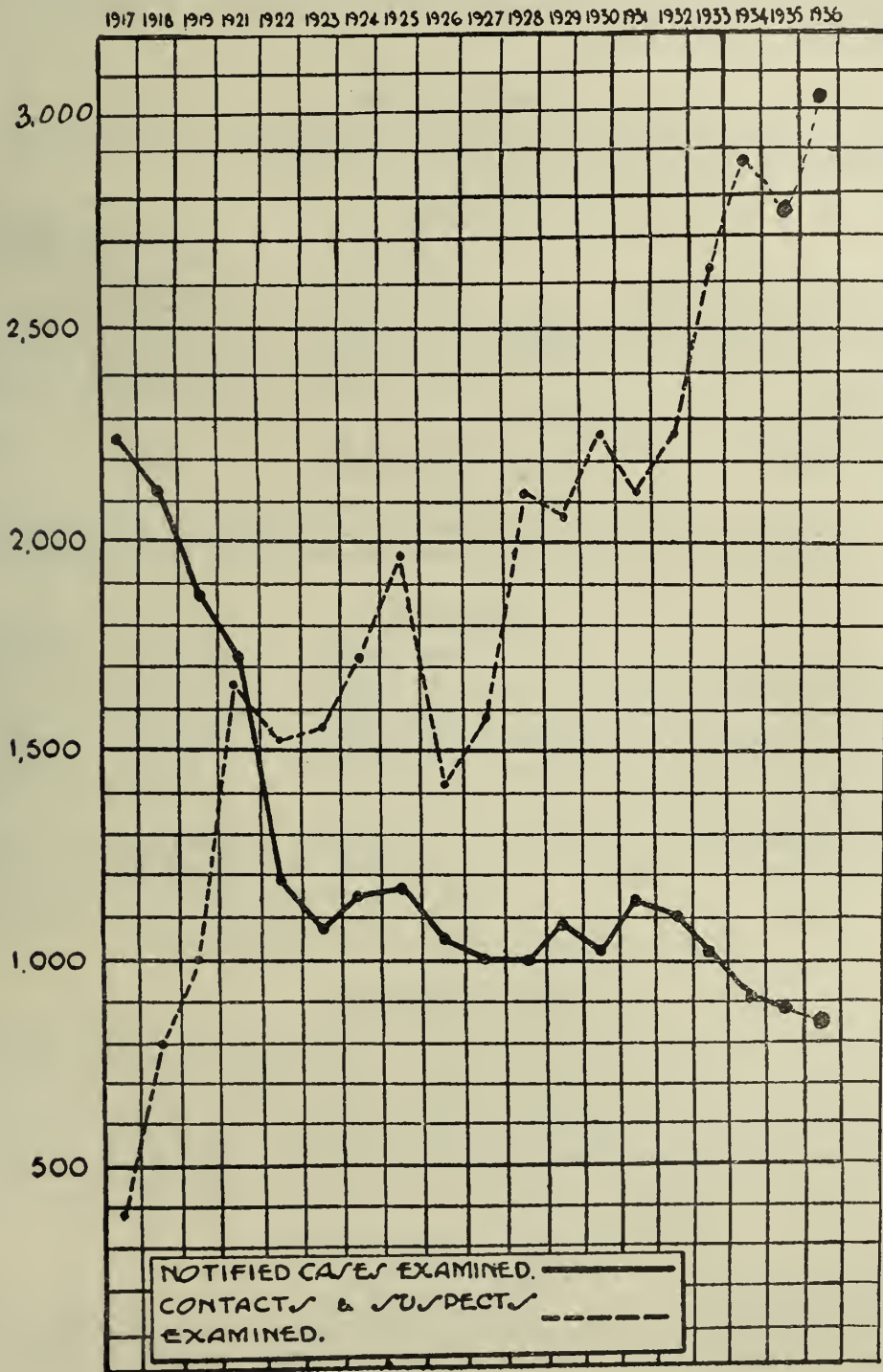
In every instance the children gave a positive result to an intradermal tuberculin test, physical signs were slight or absent in many cases, but each presented radiographic signs.

Four were suffering from the adult type of pulmonary tubercle, two from a chronic miliary distribution, two showed evidence of pleuritis, five were suffering from a tuberculous broncho-pneumonia, and thirty-six were classified as being glandular and epi-tuberculous in type.

"CONTACTS," "SUSPECTS" AND "NOTIFIED CASES."

In the graph below are shown the number of "contacts" and "suspects" and "notified cases" examined over a series of years.

PULMONARY TUBERCULOSIS.



The work of the Tuberculosis Department is greatly facilitated when patients in the General Hospitals (voluntary and municipal) who are suffering from tuberculosis, are advised to apply to us for further treatment, and for the examination of their families as "contacts".

Unless the patient realises that he is suffering from tuberculosis when he leaves the hospital, he is sometimes disinclined to accept further treatment in a sanatorium, because he imagines the time spent in the hospital is all the treatment he is likely to require.

During the past year 315 notifications of tuberculosis were received from the Municipal and Public Assistance Hospitals, having an aggregate number of beds equivalent to 4,412. Of this number, 68 were acutely ill and could not be examined for a variety of reasons; 247 were examined, and of this number 38 refused treatment, 167 were admitted to Sanatoria and 42 were recommended for treatment other than Sanatorium.

FAMILY HISTORY.

A survey of the family history has been made of 1,015 patients examined who were definitely tuberculous, and the results are shown in the following tables:—

ADULTS.

	Newly Notified.	Suspects.	Contact with Definite Disease.
No family history of tuberculosis	504 or 83.1%	225 or 74.7%	—
Father suffering or suffered from tuberculosis	16 or 15.7%	9 or 11.8%	2 or 8.7%
Mother ditto	8 or 7.8%	11 or 14.4%	3 or 13.0%
Brother or sister	27 or 26.4%	27 or 35.6%	7 or 30.4%
1 Relative other than above, school fellow or intimate friend	31 or 30.4%	15 or 19.7%	7 or 30.4%
Two or more relatives	20 or 19.6%	14 or 18.5%	4 or 17.4%
TOTAL	102	76	23

CHILDREN.

	Newly Notified.	Suspects.	Contacts with Definite Disease.
No family history of tuberculosis	23 or 74%	21 or 72.4%	—
Father suffering or suffered from tuberculosis	1 or 12.5%	2 or 25%	7 or 28%
Mother ditto	2 or 25%	2 or 25%	8 or 32%
Brother or sister ditto	—	1 or 12.5%	3 or 12%
1 Relative other than above, school fellow or intimate friend	1 or 12.5%	1 or 12.5%	—
Two or more relatives	4 or 50%	2 or 25%	7 or 28%
TOTAL	8	8	25

DENTAL TREATMENT.

The part-time services of a dental surgeon are utilized at the Centre for the necessary treatment of our patients. The treatment is conservative in type, and consists mainly of extractions, fillings, and scalings. Patients who wish to provide their own dentures can do so under conditions advantageous to themselves by arrangement with the dental surgeon. During the year there were 370 extractions, 7 fillings and 2 repairs. Dentures were supplied in 13 instances. The condition of the teeth and gums of most of our patients seen during the year, so far as dental caries, masticatory power, and the state of the gums were concerned, is shown in the following table:—

CONDITION OF TEETH AND GUMS.

Number of Teeth with infected pulp chambers.			Masticatory power in molars and bicuspid.			State of Gums.		
None.	1 to 4.	More than 4.	Six or more.	Less than 6.	None.	Healthy.	Gingivitis.	Pyorrhoea.
2,706	2,516	278	4,049	849	602	4,892	328	280

LABORATORY WORK.

A very large number of sputum examinations is undertaken during the year on behalf of persons who are referred for an opinion. If the first examination gives a negative result, subsequent and repeated specimens are examined.

As soon as a patient is referred for examination, a sputum outfit, with instructions and a request for its early return, is posted. Amongst the new adult patients examined for the first time during the year, in whom a definite diagnosis of pulmonary tuberculosis was made, i.e., 930, there were 519 or 55.8 per cent. who presented tubercle bacilli in their sputum. Amongst the total number of children primarily examined in whom a definite diagnosis of pulmonary tuberculosis was made, i.e., 85, there were 9 or 10.6 per cent. who presented tubercle bacilli in their sputum, gastric contents, or faeces.

The difficulty of obtaining sputum from children, even when it exists, is recognised, so all children, whether admitted to sanatorium for observation or treatment, have the faeces and a gastric lavage examined for acid fast bacilli, they are also submitted to a Mantoux tuberculin test. All adult patients who enter the observation pavilions have a blood sedimentation test undertaken and have the faeces examined for acid fast bacilli in addition, when sputum is persistently negative or cannot be procured. A blood sedimentation test is also undertaken periodically for those being treated by artificial pneumothorax.

At the Centre during the year 4,917 specimens of sputum were examined, at Yardley Green Road Sanatorium 6,100 specimens of sputum were examined during the year. Romsley Hill Sanatorium records show that 952 specimens of sputum were examined; at West Heath Sanatorium 1,962 specimens were examined, and at Salterley Grange Sanatorium 389 specimens of sputum were examined during the year.

COMPLETED CASES.

During the year, 1,890 patients completed a course of treatment, or supervision, etc., at the Centre, of whom 1,543 were adults and 347 were children.

During the year under review, we examined and reported upon, 224 patients who were referred to us by the Regional Medical Officer's Department.

In addition, we examined for the Police Department, fifty-seven recruits, to ascertain if any definite evidence of tuberculosis was present. We also had an opportunity of investigating fifty-nine patients suffering from Phlyctenular Ophthalmia, referred to us by the Eye Hospital. Two showed evidence of intra-thoracic tuberculosis, and two were suffering from tuberculous cervical adenitis. Six refused a period of observation for the purposes of investigation.

In the next table the working capacity at the commencement and at the end of a completed period of treatment is given for those patients who were examined during the year. The group of disease quoted was determined at the first examination.

WORKING CAPACITY OF PATIENTS ATTENDING CENTRE.

	GROUP I.		GROUP II.		GROUP III.		GROUP IV.	
	Adults.	Children.	Adults.	Children.	Adults.	Children.	Adults.	Children.
Unimpaired working capacity becoming impaired	2	1	3	—	—	—	5	5
Impaired capacity for work becoming unimpaired	156	106	167	30	15	3	36	51
Impaired capacity becoming totally incapacitated	6	2	47	—	22	—	—	—
Impaired capacity for work persisting	145	53	455	13	89	—	38	34
Total incapacity becoming unimpaired	29	6	103	1	75	1	18	12
Total incapacity becoming unimpaired	14	5	31	11	6	1	12	7
Total incapacity persisting	3	—	24	1	35	2	7	2
	355	173	830	56	242	7	116	111

In the following tables are set out, as briefly as possible, the main points in connection with an investigation undertaken to ascertain the conditions of those past patients who received treatment at the Centre in the years 1913-1936 inclusive.

PRESENT CONDITION OF PATIENTS TREATED IN PREVIOUS YEARS SHOWING CONDITION OF THOSE WHO WERE TREATED FOR PULMONARY TUBERCULOSIS.

Condition at the time of the last record made during the year to which the return relates.	Previous to 1926										1926				1927				1928				1929				1930					
	Class T.B. plus				Class T.B. minus				Class T.B. plus				Class T.B. minus				Class T.B. plus				Class T.B. minus				Class T.B. plus				Class T.B. minus			
	Total (Class T.B. plus)				Total (Class T.B. minus)				Total (Class T.B. plus)				Total (Class T.B. minus)				Total (Class T.B. plus)				Total (Class T.B. minus)				Total (Class T.B. plus)				Total (Class T.B. minus)			
	Group 1	Group 2	Group 3		Group 1	Group 2	Group 3		Group 1	Group 2	Group 3		Group 1	Group 2	Group 3		Group 1	Group 2	Group 3		Group 1	Group 2	Group 3		Group 1	Group 2	Group 3		Group 1	Group 2	Group 3	
Disease Arrested	M.	14	39	12	65	4	1	3	—	4	2	2	8	1	11	6	2	3	—	5	12	3	8	6	17	18	4	7	—	11		
	F.	74	4	12	8	24	10	1	3	—	4	9	2	6	1	9	11	1	3	1	5	16	1	2	—	3	19	1	3	1	5	
	Children	107	—	—	4	4	17	—	—	1	1	17	—	—	—	1	14	—	—	—	15	—	—	—	1	16	1	—	—	1		
Disease not Arrested	M.	35	13	44	45	102	18	1	18	1	20	9	4	22	2	28	15	4	23	3	30	14	8	23	—	31	39	9	39	5	53	
	F.	46	4	22	35	61	10	4	13	4	21	19	1	11	—	12	24	5	22	5	32	25	6	18	3	27	16	7	26	3	36	
	Children	28	—	2	1	3	9	—	—	—	—	24	—	—	—	1	17	2	—	—	2	20	2	—	—	2	19	—	2	—	2	
Total on Dispensary Register at 31st December		388	35	119	105	259	68	7	37	6	50	80	9	49	4	62	87	14	51	9	74	102	20	52	9	81	127	22	77	9	108	
Discharged as Recovered	M.	1,668	176	264	100	540	27	2	6	1	9	24	1	7	1	9	19	4	2	—	6	31	6	3	—	9	16	3	3	—	6	
	F.	1,844	120	170	61	351	49	2	6	1	9	18	3	3	—	6	15	1	4	3	8	10	16	3	2	21	17	—	2	—	2	
	Children	2,050	35	25	15	75	33	—	—	—	—	50	1	—	—	1	23	—	1	—	1	45	—	—	—	—	14	—	—	—	—	
Lost sight of, or otherwise removed from Dispensary Register.	M.	1,860	178	276	197	651	62	2	20	13	35	46	6	18	1	25	47	10	20	7	37	43	10	41	10	61	50	8	21	9	38	
	F.	895	161	798	1,453	2,412	62	15	128	186	329	46	13	160	179	352	47	16	176	161	353	50	22	171	169	362	46	11	178	149	338	
	Children	651	61	318	734	1,113	75	8	90	123	221	59	5	89	118	212	31	10	112	102	224	42	11	114	106	231	50	10	101	110	221	
Dead	M.	179	11	12	46	69	15	1	2	7	10	10	2	1	6	9	7	—	3	7	10	8	1	1	5	7	7	1	4	6	11	
	F.	9,147	742	1,863	2,606	5,211	323	30	252	331	613	253	31	278	305	614	189	41	318	280	639	229	66	333	292	691	200	33	309	274	616	
	Children	179	11	12	46	69	15	1	2	7	10	10	2	1	6	9	7	—	3	7	10	8	1	1	5	7	7	1	4	6	11	
Total written off Dispensary Register		9,147	742	1,863	2,606	5,211	323	30	252	331	613	253	31	278	305	614	189	41	318	280	639	229	66	333	292	691	200	33	309	274	616	
GRAND TOTALS	...	9,535	777	1,982	2,711	5,470	391	37	289	337	663	333	40	327	309	676	276	55	369	289	713	331	86	385	301	772	327	55	386	283	724	

Not now on Dispensary Register and reasons for removal therefrom.

Remaining on Dispensary Register on 31st December.

PRESENT CONDITION OF PATIENTS TREATED IN PREVIOUS YEARS SHOWING CONDITION OF THOSE WHO WERE TREATED FOR PULMONARY TUBERCULOSIS.

Condition at the time of the last record made during the year to which the return relates		1931				1932				1933				1934				1935				1936			
		Class T.B. plus				Class T.B. plus				Class T.B. plus				Class T.B. plus				Class T.B. plus				Class T.B. Plus			
		Group 1	Group 2	Group 3	Total (Class T.B. plus)	Group 1	Group 2	Group 3	Total (Class T.B. plus)	Group 1	Group 2	Group 3	Total (Class T.B. plus)	Group 1	Group 2	Group 3	Total (Class T.B. plus)	Group 1	Group 2	Group 3	Total (Class T.B. plus)	Group 1	Group 2	Group 3	Total (Class T.B. plus)
Remaining on Dispensary Register on 31st December	Disease arrested	M.	15	9	10	—	19	7	16	1	4	—	5	4	1	—	—	—	—	—	—	—	—	—	—
		F.	22	6	3	2	11	12	20	2	4	—	6	3	—	—	—	—	—	—	—	—	—	—	—
		Children	40	—	1	—	1	—	3	9	2	—	—	2	—	—	—	—	—	—	—	—	—	—	—
	Disease not arrested	M.	35	5	47	8	60	16	92	61	13	79	27	119	94	22	95	29	146	97	18	106	47	171	122
		F.	35	8	28	7	43	—	56	45	12	53	18	83	76	16	59	21	96	85	11	85	25	121	107
	Children	40	2	1	2	5	—	4	56	2	2	—	1	3	76	12	1	—	13	79	6	3	—	9	51
	Total on Dispensary Register at 31st December		187	30	90	19	139	24	174	207	32	140	46	218	255	51	155	50	256	261	35	194	72	301	280
	Discharged as Recovered	Adults	M.	6	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
			F.	6	2	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Children	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lost sight of, or otherwise removed from Dispensary Register.		55	7	39	10	56	36	46	38	9	30	9	48	47	7	23	9	39	20	2	17	11	30	15	
	M.	50	6	162	174	342	42	289	38	3	98	175	276	27	3	81	141	225	23	1	52	113	166	24	
	F.	41	10	95	127	232	35	218	42	8	76	89	173	32	7	53	86	146	24	3	35	72	110	10	
Not now on Dispensary Register and reasons for removal therefrom.	Dead	Adults	11	—	5	5	10	4	2	1	8	4	13	5	1	5	3	9	5	1	1	4	6	2	
		Children <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>																							
	Total written off Dispensary Register		173	25	302	316	643	117	565	120	21	212	277	510	111	18	162	239	419	72	7	105	200	312	51
GRAND TOTALS	..	360	55	392	335	782	317	739	327	53	352	323	728	366	69	317	289	675	333	42	299	272	613	331	

PRESENT CONDITION OF PATIENTS TREATED IN PREVIOUS YEARS SHOWING CONDITION OF THOSE WHO WERE TREATED FOR NON-PULMONARY TUBERCULOSIS.

Condition at the time of the last record made during the year to which the return relates.	Previous to 1926				1926				1927				1928				1929				1930										
	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total						
Remaining on Dispensary Register on 31st December.	Disease Arrested	M.	—	—	—	2	1	—	—	1	—	—	—	—	—	—	1	1	—	—	2	1	—	—	—	1					
		F.	3	1	—	2	6	1	1	1	4	2	—	—	—	1	—	—	—	—	—	—	1	—	—	1					
		Children	2	3	—	7	12	2	—	—	1	3	—	1	—	3	4	—	1	—	—	3	8	1	4	—	9				
	Disease not Arrested	M.	2	—	—	2	1	—	1	—	2	2	1	—	1	4	2	4	—	1	1	6	5	1	1	4	11				
		F.	5	—	—	1	6	3	1	3	—	7	2	1	1	5	9	—	1	1	3	9	2	—	3	2	7				
Total on Dispensary Register at 31st December	Children	3	—	3	5	11	5	2	—	2	9	5	—	1	1	7	2	2	—	3	7	8	2	1	2	3	7				
	Register	15	4	3	15	37	14	4	5	4	27	12	3	2	10	27	5	4	3	8	20	20	5	5	9	39	36				
Transferred to Pulmonary	Discharged as Recovered	M.	5	3	1	6	15	—	1	1	3	5	3	2	1	1	7	1	1	—	3	1	2	3	2	8	—	3	5		
		F.	11	6	2	4	23	6	1	—	2	9	6	—	—	—	6	3	2	2	9	5	2	1	—	8	—	1	4	2	7
		Children	8	2	3	8	21	—	—	—	3	3	4	8	2	—	14	3	—	1	2	6	4	2	2	10	1	2	2	2	7
	Lost sight of, or otherwise removed from Dispensary Register	9	19	7	59	94	9	2	1	22	34	4	5	1	7	17	4	5	1	11	21	12	6	1	11	30	9	3	2	13	27
		Register	9	11	9	17	46	6	2	1	5	14	4	—	2	—	6	3	2	1	8	14	9	2	1	8	20	6	3	1	6	16
Not now on Dispensary Register and reasons for removal therefrom.	Dead	M.	14	2	4	1	21	6	2	—	8	5	1	1	—	7	7	1	2	1	11	4	2	2	—	8	4	1	1	—	6
		F.	10	2	2	3	17	2	—	1	—	3	1	1	2	1	5	1	—	1	3	—	2	2	—	4	4	1	1	—	6
		Children	7	7	1	2	17	—	2	—	1	3	—	3	—	—	3	1	1	—	2	2	3	3	2	2	10	—	1	1	3	5
	Total written off Register	68	49	28	94	239	29	9	3	33	74	24	18	8	8	58	22	11	8	25	66	37	19	11	23	90	24	12	12	26	74
		Grand Totals	83	53	31	109	276	43	13	8	37	101	36	21	10	18	85	27	15	11	33	86	57	24	16	32	129	34	19	18	39	110

PRESENT CONDITION OF PATIENTS TREATED IN PREVIOUS YEARS SHOWING CONDITION OF THOSE WHO WERE TREATED FOR NON-PULMONARY TUBERCULOSIS.

Condition at the time of the last record made during the year to which the return relates			1931				1932				1933				1934				1935				1936										
			Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total						
Remaining on Dispensary Register on 31st December	Disease Arrested	Adults	M.	—	—	—	1	2	1	—	—	3	4	—	—	—	1	3	—	—	—	1	1	—	—	—	—	1					
		F.	4	—	—	1	5	2	—	—	—	2	3	—	1	—	1	2	—	—	—	—	—	—	—	—	—						
	Disease not Arrested	Children	5	2	—	5	12	3	1	1	4	9	1	2	1	3	7	4	—	—	—	—	1	—	—	—	—	1					
		Adults	M.	—	3	3	17	4	3	5	3	15	14	—	—	2	4	20	14	1	10	2	27	14	4	8	4	30	11	4	14	5	34
		Children	F.	5	2	1	—	8	13	3	1	2	19	10	7	6	6	29	16	6	4	6	32	13	3	11	9	36	15	9	6	5	35
Total on Dispensary Register at 31st December			15	2	2	6	25	11	2	2	5	20	29	4	3	8	44	18	4	3	11	36	17	3	6	19	45	23	2	3	13	41	
			40	7	6	15	68	35	10	9	14	68	61	13	13	24	111	54	12	17	23	106	45	10	25	33	113	51	15	23	23	112	
Transferred to Pulmonary			4	3	—	—	7	2	1	1	1	5	5	—	2	4	11	2	—	2	2	6	—	1	—	—	—	1	—	—	—	—	—
Not now on Dispensary Register and reasons for removal therefrom	Discharged as recovered	Adults	M	3	1	—	—	4	2	2	—	1	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		F.	—	2	1	3	6	—	2	—	1	3	1	1	—	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Lost sight of, or otherwise removed from Dispensary Register	Children	2	3	—	10	15	2	—	1	2	5	1	—	—	—	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Adults	M.	—	5	2	10	19	8	3	2	5	18	7	3	2	5	17	3	1	2	3	9	—	4	2	2	8	—	1	1	1	3
		Children	F.	3	—	1	1	5	6	3	3	—	12	2	—	2	—	4	2	—	1	—	3	—	—	—	1	—	1	1	—	—	2
Dead			1	2	—	—	3	1	1	1	4	1	1	1	2	—	4	2	3	2	—	7	2	4	1	—	7	—	1	—	—	1	—
			5	2	—	1	8	4	—	—	1	5	2	—	—	—	2	—	1	1	—	2	1	—	—	1	—	2	2	—	1	—	3
Total written off Dispensary Register			16	15	4	25	60	23	11	7	11	52	14	5	6	8	33	7	5	6	3	21	3	8	5	2	18	3	3	2	1	9	—
GRAND TOTALS			56	22	10	40	128	58	21	16	25	120	75	18	19	32	144	61	17	23	26	127	48	18	30	35	131	54	18	25	24	121	—

SUMMARY.

1. Not less than 90 per cent. of the total number notified in the City as suffering from pulmonary tuberculosis were examined at the Centre.
2. The number of patients who were visited and examined in their own homes by the Medical Staff was 1,123. This figure represented an increase when compared with that of the previous year.
3. During the year, 6,750 screen examinations were made in the radiological section, and films were taken in 2,303 cases. There was an increase both in the number of screen examinations, and in the number of films taken, when compared with the figures for the year 1935.
4. Amongst new patients suffering from pulmonary tuberculosis examined during the year, 55.8 per cent. of the adults presented tubercle bacilli in their sputum, and 10.6 per cent. of the children. These figures show that amongst the adults notified as suffering from pulmonary tuberculosis, there were ten per cent. less with a positive laboratory finding than in the year 1935. The number of children who gave a positive laboratory finding for tubercle bacilli was about two per cent. above that recorded for the year 1935, which is probably due to the intensive investigation which these patients undergo.
5. Of the 926 primary cases suffering from pulmonary tuberculosis examined during the year 20.2 per cent. were classified as Group I; 45.8 per cent. were classified as Group II; and 34 per cent. as Group III.
6. Of the patients treated during the periods 1913-1936, some 12,563 presented tubercle bacilli in their sputum. Of this number 25.5 per cent. are known to be still alive; 70.5 per cent. are known to be dead, and 4 per cent. have been lost sight of.
7. During the same period, 13,257 patients whose sputum contained no tubercle bacilli were treated. Of this number 62.2 per cent. are known to be alive; 20.3 per cent. are known to be dead, and 17.5 per cent. have been lost sight of.
8. During this period (1913-1936) 1,514 patients suffering from non-pulmonary tuberculosis were treated. Of this number 76.2 per cent. are known to be still alive; 14.1 per cent. are known to be dead, and 9.7 per cent. have been lost sight of.

SANATORIA.

TOTAL NUMBERS TREATED IN SANATORIA AND DURATION OF STAY.

During the year 1936, there were 1,601 patients discharged from all the Sanatoria. Included in this number are 73 patients suffering from non-pulmonary tuberculosis who were treated in Institutions subsidised by the Health Department. Of the 1,601 patients, 845 were adult males, 507 were adult females, and 249 were children.

The average duration of stay was 116.2 days for adult males, 149.1 days for adult females, 263.9 days for male children, and 228.9 days for female children, excluding those admitted for observation and who, proving negative, remained only for a short time, and excluding those "hospital" cases with advanced disease who died within a few days of their admission.

OCCUPATIONAL THERAPY IN SANATORIA.

In the Municipal Sanatoria attention is paid to the question of occupational therapy with the object of interesting and employing suitably a certain number of the patients whose condition admits of it. The fitness of the patient to engage in occupational therapy is always judged by the medical officer, who has the patient under constant supervision. The occupation to be followed and the number of hours to be devoted to it are both decided upon by the doctor after careful consideration. At Salterley Grange Sanatorium, the physical condition of the patients is usually so good, and their disease so early that temporary employment suitable to their needs can be found in the gardens, and upon the estate. At West Heath and Yardley Green Road Sanatoria, facilities for occupational therapy have existed for many years. At West Heath the patients are employed in basket making. Patients at Romsley Hill Sanatorium are also instructed in basket and leather work.

At Yardley Green Road Sanatorium patients are instructed in basket making, leather work of different kinds, and in mat making, etc., and considerable development has taken place here during recent years.

It should be noted that the children attending the Sanatorium School at Yardley Green Road are taught various forms of handicraft work, including leather work, pewter work, raffia work, basket making, etc. Many children who are confined to bed are also taught handicrafts. Schooling at Yardley Green Road Sanatorium is also provided for suitable children who are ambulant and immobilised, three school teachers being employed on the staff.

RESULTS OF TREATMENT OF PATIENTS DISCHARGED FROM RESIDENTIAL INSTITUTIONS
DURING THE YEAR 1936.

Classification on admission to the Institution.		Condition at time of discharge.	Duration of Residential Treatment in the Institutions.												Totals.			Grand Totals	
			Under 3 months but exceeding 28 days.			3—6 months.			6—12 months.			More than 12 months.							
			M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.		
PULMONARY TUBERCULOSIS.	Class T.B. minus.	Quiescent ...	8	9	2	2	8	2	1	3	—	1	1	2	12	21	6	39	
		Not quiescent	94	45	12	37	24	21	8	17	13	1	2	14	140	88	60	288	
		Died in Institution	8	2	1	2	—	—	—	—	1	—	—	—	10	2	2	14	
	Class T.B. plus. GROUP I.	Quiescent ...	—	—	—	1	1	—	—	—	—	—	—	—	1	1	—	2	
		Not quiescent	7	4	—	7	2	—	—	1	—	—	—	—	14	7	—	21	
		Died in Institution	—	—	—	—	—	—	—	—	—	—	2	—	—	2	—	2	
	Class T.B. plus. GROUP II.	Quiescent ...	—	—	—	1	2	—	1	1	—	—	—	—	2	3	—	5	
		Not quiescent	117	42	—	56	37	—	20	34	—	10	8	1	203	121	1	325	
		Died in Institution	9	4	—	4	3	—	4	6	—	2	1	—	19	14	—	33	
	Class T.B. plus. GROUP III.	Quiescent ...	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—	1	
		Not quiescent	92	41	—	35	33	2	23	13	—	5	4	—	155	91	2	248	
		Died in Institution	40	32	—	13	15	—	9	10	—	6	7	—	68	64	—	132	
	TOTALS (Pulmonary) ...		375	179	15	158	125	25	66	85	14	26	25	17	625	414	71	1110	
	NON-PULMONARY TUBERCULOSIS.	BONES & JOINTS.	Quiescent ...	—	—	2	—	—	3	—	—	1	1	—	5	1	—	11	12
			Not quiescent	3	1	12	3	1	9	—	2	16	6	2	6	12	6	43	61
Died in Institution			1	—	1	—	—	—	—	—	1	—	—	—	1	—	2	3	
ABDOMINAL.		Quiescent ...	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	1	
		Not quiescent	2	—	—	3	2	1	1	3	—	—	—	1	6	5	2	13	
		Died in Institution	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	
OTHER ORGANS.		Quiescent ...	—	—	1	—	1	—	—	—	—	—	—	—	—	1	1	2	
		Not quiescent	2	1	—	3	1	1	2	—	—	2	1	1	9	3	2	14	
		Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
PERIPHERAL GLANDS.		Quiescent ...	—	—	3	—	—	—	—	—	—	—	—	1	—	—	4	4	
		Not quiescent	—	2	1	—	—	4	—	—	5	—	—	—	—	2	10	12	
		Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
TOTALS (Non-Pulmonary) ...		9	4	20	9	5	18	3	5	23	9	4	14	30	18	75	123		

NOTE—"Quiescent" disease indicates that there are no symptoms of tuberculosis, and no signs of tuberculous disease except such as are compatible with a completely healed lesion, and in which sputum, if present, is free from tubercle bacilli.

PATIENTS ADMITTED TO SANATORIA FOR OBSERVATION AND INVESTIGATION.

The beds utilised for the purpose of observation are at Yardley Green Road Sanatorium. Observation patients are those who, after careful and repeated examinations at the Centre, are found to be indefinite, either as to the absence or presence of tuberculosis or as to its activity or otherwise when present, and are usually admitted for a period varying from four to six weeks. Of the 1,528 patients discharged from the Sanatoria, 216 or 14 per cent. were admitted primarily for observation to Yardley Green Road Sanatorium. The medical findings are shown in the following table:—

Diagnosis on discharge from observation.		For Pulmonary Tuberculosis.						For Non-pulmonary Tuberculosis						TOTALS.		
		Stay under 4 weeks.			Stay over 4 weeks.			Stay under 4 weeks.			Stay over 4 weeks.					
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.
Tuberculous	...	6	7	7	4	3	20	1	—	1	—	1	4	11	11	32
Non-tuberculous	...	15	7	7	46	10	48	1	1	—	1	—	9	63	18	64
Doubtful	... ..	2	2	10	—	1	1	1	—	—	—	—	—	3	3	11
TOTALS	...	23	16	24	50	14	69	3	1	1	1	1	13	77	32	107

CLASSIFICATION OF PATIENTS' DISEASE.

In this table the patients are scheduled according to the classification of the Ministry of Health, as follows:—

- Group I. Cases with slight constitutional disturbance, if any, e.g., there should not be marked acceleration of pulse nor elevation of temperature, except of very transient duration; gastro-intestinal disturbance or emaciation, if present, should not be excessive. The obvious physical signs should be of very limited extent, as follows:—Either present in one lobe only, and in the case of an apical lesion of one upper lobe not extending below the second rib in front and not exceeding an equivalent area in any one lobe; or where these physical signs are present in more than one lobe, they should be limited to the apices of the upper lobes and should not extend below the clavicle and the spine of the scapula. No complication (tuberculous or otherwise) of prognostic gravity should be present. A small area of dry pleurisy should not exclude a case from this group.
- Group III. Cases with profound systemic disturbance or constitutional deterioration; with marked impairment of function either local or general, and with little or no prospect of recovery. All cases with grave complications whether tuberculous or not, should be classified in this Group, e.g., diabetes, tuberculosis of larynx or intestines, etc.
- Group. II. All cases which cannot be placed in Group I and III. Patients suffering from non-pulmonary tuberculosis are classified according to the site of the lesion and are placed under Group IV.

SPUTUM RESULTS AFTER SANATORIUM TREATMENT.

Of the 1,255 adult patients discharged from the Sanatoria suffering from pulmonary tuberculosis during the year, 914 or 72.8 per cent. presented tubercle bacilli in their sputum whilst in the Sanatoria.

Sanatoria	No sputum persisting	No sputum becoming T.B.—	No sputum becoming T.B.+	T.B.— persisting	T.B.— becoming T.B.+	T.B.— becoming no sputum	T.B.+ persisting	T.B.+ becoming T.B.—	T.B.+ becoming no sputum
Yardley Green Road Sanatorium	52	2	2	97	3	17	325	10	14
Romsley Hill Sanatorium	15	1	—	33	—	8	178	4	15
Salterley Grange Sanatorium	33	1	1	17	—	25	57	9	11
West Heath Sanatorium	18	—	—	19	—	3	265	3	17
	118	4	3	166	3	53	825	26	57

OCCUPATIONS.

In the following table the occupation of both male and female patients are shown:—

	Males.	Females
Out-door occupations	71	—
Domestic occupations	15	217
Sedentary occupations	70	55
Commercial occupations	31	16
Engineering occupations	141	82
Metal Trades	173	43
Building Trade	45	1
Other Trades	228	67
	774	481

GAIN OR LOSS IN WEIGHT.

Amongst a total of 1,370 patients discharged from Sanatoria after treatment, many of whom were advanced hospital cases admitted for the purpose of prophylaxis, 128 or 9.3 per cent. remained stationary, and 1,182 or 86.3 per cent. gained weight in amounts varying from 1 to 40 lbs.

WORKING CAPACITY.

The working capacity of patients is shown in the following tables:—

	Adult Males.	Adult Females.	Children.	Total
Impaired working capacity becoming unimpaired	27	18	29	74
Impaired capacity for work persisting	374	196	62	632
Impaired capacity for work becoming totally incapacitated	22	18	—	40
Total incapacity for work becoming impaired	118	89	12	219
Total incapacity for work becoming unimpaired	2	3	4	9
Total incapacity for work persisting	60	35	3	98
Died in Sanatoria	171	122	5	298
	774	481	115	1,370

SUMMARY.

1. The average duration of patients' stay for all the Sanatoria was 116.2 days for adult males; 149.1 days for adult females; 263.9 days for male children, and 228.9 for female children.
2. Of the patients from all sanatoria no less than 14 per cent. passed through the observation beds at Yardley Green Road Sanatorium.

3. 42.2 per cent. of the patients were in Group III; 38.5 per cent. were in Group II; 13.7 per cent. were in Group I; and 5.6 per cent. were in Group IV.
4. There were 72.8 per cent. of all patients discharged from Sanatoria who presented tubercle bacilli in their sputum whilst in the Sanatorium.
5. 1,182 or 86.3 per cent. of all patients discharged from Sanatoria gained weight in amounts varying from 1 to 40 lbs.
6. Some 367 or 45.5 per cent. of the deaths from tuberculosis occurred in "Hospital" beds in various Sanatoria and Hospitals controlled by the Public Health Committee.

TREATMENT IN THE LIGHT CLINIC.

PATIENTS COMPLETING TREATMENT DURING 1936.

The total number of patients completing a satisfactory course of treatment during the year 1936, was 65.

This number includes 23 adult males, 15 adult females, 11 male children, and 16 female children.

These completed cases consisted of:—

	Adult Males.	Adult Females.	Male Children.	Female Children.
Tuberculous joints and bones ...	5	1	5	4
Tuberculosis of abdomen ...	4	4	1	0
Cervical adenitis ...	5	4	3	9
Lupus ...	2	3	2	3
Sinus ...	—	—	—	—
Other Organs ...	7	3	—	—
	23	15	11	16

PATIENTS CONTINUING TREATMENT.

On the 31st December, 1936, 154 were continuing treatment in the Light Clinics and many showed an improvement in their condition.

VENEREAL DISEASES.

The City Council maintain three centres for the treatment of venereal diseases, one for men, women and children at the Birmingham General Hospital, one for children at the Children's Hospital, and one for mothers and young children in the same building as that occupied as a Maternity and Child Welfare Centre in Lancaster Street. In addition cases of venereal disease come under treatment at the Venereal Diseases Clinic maintained in connection with the Women's Venereal Diseases Ward in the Birmingham Infirmary.

At these centres 353 new cases of syphilis, 7 of soft chancre, 971 of gonorrhoea and 1,988 cases suffering from conditions other than venereal disease were seen in 1936, as follows:—

	Syphilis.	New Cases. Soft Chancre.	Gonorrhoea.	Other Conditions.
General Hospital ...	308	7	901	1,284
Children's Hospital ...	15	—	5	46
Aston Street Centre (now Lancaster St.)	17	—	40	649
Birmingham Infirmary ...	13	—	25	9
Total	353	7	971	1,988

The new cases coming under treatment for the first time, and not having had previous treatment at other Centres, are indicated in the following table. It should be noted that cases who, attending our clinics for the first time, have been treated at clinics elsewhere, have been excluded for each year:—

	Syphilis.	Soft Chancre.	Gonorrhoea.	Other. Conditions.
1926	537	2	848	729
1927	622	4	952	861
1928	592	10	1,146	920
1929	523	9	1,200	803
1930	541	14	1,257	1,076
1931	504	1	985	1,082
1932	512	10	1,066	1,109
1933	454	19	944	1,248
1934	511*	25*	998*	1,425*
1935	428	20	882	1,887
1936	353	7	971	1,988

*These figures include those for the Birmingham Infirmary for the first time.

The total attendances for the last nine years were :—

1928	...	...	...	...	78,261
1929	...	...	...	...	78,098
1930	...	...	...	...	88,589
1931	...	...	...	...	93,280
1932	...	...	...	...	100,313
1933	...	...	...	...	103,925
1934	...	...	...	...	*110,716
1935	...	...	...	...	121,788
1936	...	...	...	...	124,387

*These figures include those from Birmingham Infirmary for the first time.

These figures justify comments closely in line with those of last year :—

- That the clinics are being visited to a steadily increasing extent by patients who prove not to have venereal disease; that is to say, they are being used in a truly preventive sense by both medical practitioners and the general public.
- That over a series of years there has been some tendency towards reduction in the number of cases of syphilis. The trend in regard to new cases of gonorrhoea is by no means so clear. On the whole the incidence appears almost stationary.
- That the patients needing treatment attend with a steadily improving persistence, and undergo a correspondingly thorough treatment, as indicated by the growth in attendances in successive years.

Further particulars of the work done at the Centres in 1936 are as follows :—

	Syphilis.	Soft Chancre.	Gonorrhoea.	Other Conditions
No. of cases under treatment, January 1st, 1936	1,214	12	606	254
New cases under treatment during year	353	7	971	1,988
Total attendances	31,974	106	68,358	23,949
Number discharged after completion of treatment and observation	146	8	499	1,951
Number transferred to other centres	112	3	206	—
Number who ceased to attend :—				
Before completion of treatment	185	—	184	—
After completion of treatment, but before final tests as to cure	23	5	134	—
Number of cases of congenital syphilis treated :—				
Under 1 year of age ... ..	...	...	6	...
Aged 1—5 years ... ..	...	...	6	...
Aged 5—15 years ... ..	...	...	23	...
Aged 15 years and over ... ..	...	...	43	...
			78	...

Publicity and Educational Work.

A grant of £420 was paid by the Public Health Committee towards the expenses of the Birmingham Branch of the British Social Hygiene Council. The work of this Branch is invaluable to the City, both from the point of view of advice to the individual needing social help, and from that of the systematic instruction of the general public in the ideals and practice of social hygiene. The audiences to whom lectures and addresses are given by its lecturers are ever growing in scope and in numbers.

During the year addresses were given to approximately 30,000 persons, the talks including courses of lectures and general addresses in factories and to social and religious organisations, and to numbers of unemployed in the occupational centres for both men and women, together with special instructional lectures to a large variety of special bodies. A large amount of personal advice continues to be given by the officers of the Branch.

Twelve courses of publicly advertised lectures for men and women were provided by officers of the Birmingham Branch.

The Branch has also published three new pamphlets, dealing with the objects of the work, during the year.

VII. MATERNITY AND CHILD WELFARE.

(Report by Dr. ETHEL CASSIE).

CHIEF STATISTICS, 1936.

Birth-Rate 15.8 per 1,000. (16,386 live births).

Illegitimate Birth-Rate 3.4 per cent. (553 illegitimate births).

Infant Mortality Rate 62 per 1,000 live births (1,021 deaths).

Stillbirths 35 per 1,000 live and stillbirths (590 stillbirths).

Neo-natal Mortality 30 per 1,000 births (489 deaths). (Infant deaths in the first four weeks of life).

Deaths from one to two years 8.8 per 1,000 of the age population (131 deaths).

Deaths from two to five years 3.3 per 1,000 of the age population (145 deaths).

Maternal Mortality in Childbirth 3.53 per 1,000 live and stillbirths (60 deaths).

Child Population under five (estimated) 71,352.

GENERAL COMMENTS.

Births.

There has been a small rise in the birth-rate, which occurred in the middle and outer ring of wards.

Infant and Child Mortality.

The *infant mortality* has fallen from 64 per 1,000 births in 1935 to 62 in 1936.

A decrease of 43 deaths occurred during the "neo-natal" period, under the age of one month, while there was an increase of 40 deaths between one and twelve months of age, as compared with the figures for 1935.

The *neo-natal death-rate* (29.8 per 1,000 live births) is lower than it has been since 1930, when it was 28.7 and lower than the five years' average 1931 to 1935 (32.3).

The number of *stillbirths* has risen slightly, and is equivalent to 35 per 1,000 of the live and stillbirths. The total loss of life from stillbirths and neo-natal deaths amounts to 1,079 while the deaths of infants between the age of one month and twelve months total 532.

The stillbirth rate, neo-natal deaths and maternal mortality in childbirth have closely associated factors, and continue to show no material reduction.

The *death-rate among illegitimate infants* is rather higher than in the previous year.

Some further slight fall has occurred in the *death-rate of children from one to two years*. The rate from *two to five years* has also fallen.

Maternal Mortality in Childbirth.

In Birmingham the maternal mortality for the year shows an increase as compared with 1935 (3.53 per 1,000 total births against 3.40), while the rate for England and Wales, as a whole, shows a reduction (3.65 against 3.93). The rise in Birmingham is due to an increase in deaths from haemorrhage and from certain accidents of pregnancy. It is hoped that the establishment of the emergency service, referred to later in this report, will reduce the latter.

Puerperal Sepsis and Pyrexia.

Detailed information has been obtained in all notified cases. There has been no definite spread of infection in the practice either of midwives or of institutions.

BIRTHS.

During 1936 there were 16,386 live births (8,415 males and 7,971 females) belonging to Birmingham, and 590 stillbirths, making a total of 16,976. The live births number 475 more than in the previous year, and were equal to a birth-rate of 15.8 against one of 15.4 in 1935. The birth-

rates of the past 36 years are given in Table I in the Appendix. It will be seen that except for fluctuations during the war period, there was a steady decline in the rate from 31.4 in 1901 to 14.7 in 1933, but in 1934, 1935 and 1936 small increases were recorded.

The Birmingham birth-rate is among the higher rates in the list for the great towns, as will be seen from the figures below:—

BIRTH-RATES IN LARGEST TOWNS.

London	...	...	...	...	...	...	...	13.6	per 1,000
Glasgow	...	...	...	...	...	...	...	19.7	„
Birmingham	...	...	...	...	...	...	...	15.8	„
Liverpool	...	...	...	...	...	...	...	20.1	„
Manchester	...	...	...	...	...	...	...	14.7	„
Sheffield	...	...	...	...	...	...	...	15.2	„
Leeds	...	...	...	...	...	...	...	15.0	„
Edinburgh	...	...	...	...	...	...	...	15.9	„
Bristol	...	...	...	...	...	...	...	12.3	„
Hull	...	...	...	...	...	...	...	18.4	„
Bradford	...	...	...	...	...	...	...	13.4	„

The birth-rate varied greatly in different parts of the City, as shown in the following table:—

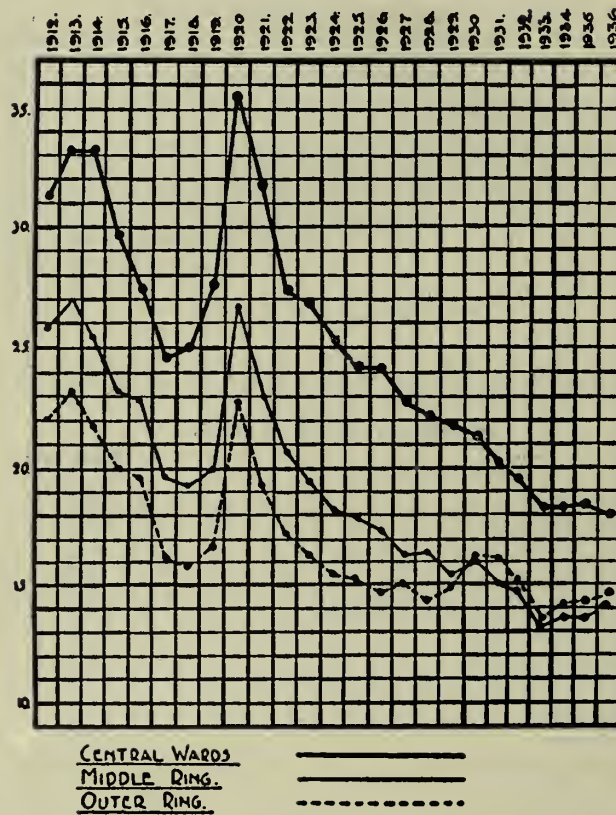
BIRTH RATES IN WARDS.

	Ward	Birth rate	
Central Wards :	St. Paul's	19.4	1936 Average 18.0 1935 Average 18.4 1934 Average 18.2
	St. Mary's	18.4	
	Duddeston and Nechells	20.0	
	St. Bartholomew's.....	18.8	
	St. Martin's and Deritend	18.3	
	Market Hall	14.5	
	Ladywood	16.3	
Middle Ring :	Lozells	17.5	1936 Average 14.2 1935 Average 13.6 1934 Average 13.6
	Aston	17.9	
	Washwood Heath	12.4	
	Saltley	15.4	
	Small Heath	12.2	
	Sparkbrook.....	15.0	
	Balsall Heath	13.3	
	Edgbaston	8.6	
	Rotton Park	15.3	
Outer Ring :	All Saints'	14.8	1936 Average 14.8 1935 Average 14.3 1934 Average 14.1
	Soho	11.1	
	Sandwell	11.8	
	Handsworth	13.8	
	Perry Barr	23.4	
	Erdington	11.9	
	Gravelly Hill	14.1	
	Bromford	16.5	
	Stechford	19.8	
	Yardley	14.7	
	Acocock's Green	14.7	
	Hall Green	15.0	
	Sparkhill	13.4	
	Moseley and King's Heath	13.8	
	Selly Oak	14.0	
	King's Norton	13.6	
	Northfield	18.0	
	Harborne	12.2	

The figures for individual Wards are not comparable with those in previous years owing to many alterations in ward boundaries in November, 1934, but the groups (central, middle and outer) are roughly comparable with those for previous years.

The movements in the birth-rate in the three groups of Wards are indicated in the diagram below.

BIRTH RATE IN GROUPS OF WARDS.



ILLEGITIMATE BIRTHS.

During 1936 there were 553 illegitimate births belonging to Birmingham. Of these 528 occurred in the City and 25 in other places. The illegitimate births were in the proportion of 33.7 per 1,000 of the total live births, as against 33.3 for 1935.

The figures for the past 10 years were as follows :—

						Illegitimate Births per 1,000 live births.
1927	...	...	...	...	...	36.5
1928	...	...	...	...	...	33.6
1929	...	...	...	...	...	36.6
1930	...	...	...	...	...	35.8
1931	...	...	...	...	...	33.8
1932	...	...	...	...	...	32.9
1933	...	...	...	...	...	36.8
1934	...	...	...	...	...	36.6
1935	...	...	...	...	...	33.3
1936	...	...	...	...	...	33.7

INFANT AND CHILD MORTALITY.

The deaths of infants under one year of age numbered 1,021 and were equal to an infant mortality rate of 62 per 1,000 births.

The infant mortality rates for a number of years are shown in the table below :—

					INFANT MORTALITY RATE.	
					Birmingham.	England and Wales.
1901-05	...	...	...	...	157	138
1906-10	...	...	...	...	131	117
1911-15	...	...	...	...	126	110
1916-20	...	...	...	...	94	90
1921-25	...	...	...	...	80	76
1926-30	...	...	...	...	70	68
1931-35	...	...	...	...	67	62
1927	...	...	...	...	75	70
1928	...	...	...	...	65	65
1929	...	...	...	...	79	74
1930	...	...	...	...	60	60
1931	...	...	...	...	71	66
1932	...	...	...	...	67	65
1933	...	...	...	...	66	64
1934	...	...	...	...	68	59
1935	...	...	...	...	64	57
1936	...	...	...	...	62	59

The infant mortality rates in Birmingham and ten of the largest British towns for 1924 and 1935 and 1936 are shown in the sub-joined table :—

					Rate per 1,000 Live Births.		
					1924	1935	1936
London	...	...	...	...	69	58	66
Glasgow	...	...	...	...	119	98	109
Birmingham	...	...	...	...	83	64	62
Liverpool	...	...	...	...	103	83	75
Manchester	...	...	...	...	100	71	77
Sheffield	...	...	...	...	89	52	59
Leeds	...	...	...	...	108	64	65
Edinburgh	...	...	...	...	89	70	68
Bristol	...	...	...	...	71	43	48
Hull	...	...	...	...	87	72	65
Bradford	...	...	...	...	92	64	83

INFANT MORTALITY IN WARDS.

The appended table shows the infant mortality rate in each of the Wards of the City in 1936. The average mortality in the groups of Wards ten years ago is given for comparison.

Central Wards :	{					87	Average : In 1936—87 In 1935—85 In 1934—87 In 1925—104
	{					89	
	{					82	
	{					73	
	{					99	
	{					90	
	{					87	
Middle Ring :	{					48	Average : In 1936—62 In 1935—59 In 1934—69 In 1925—74
	{					78	
	{					47	
	{					80	
	{					48	
	{					76	
	{					55	
	{					47	
	{					61	
	{					79	

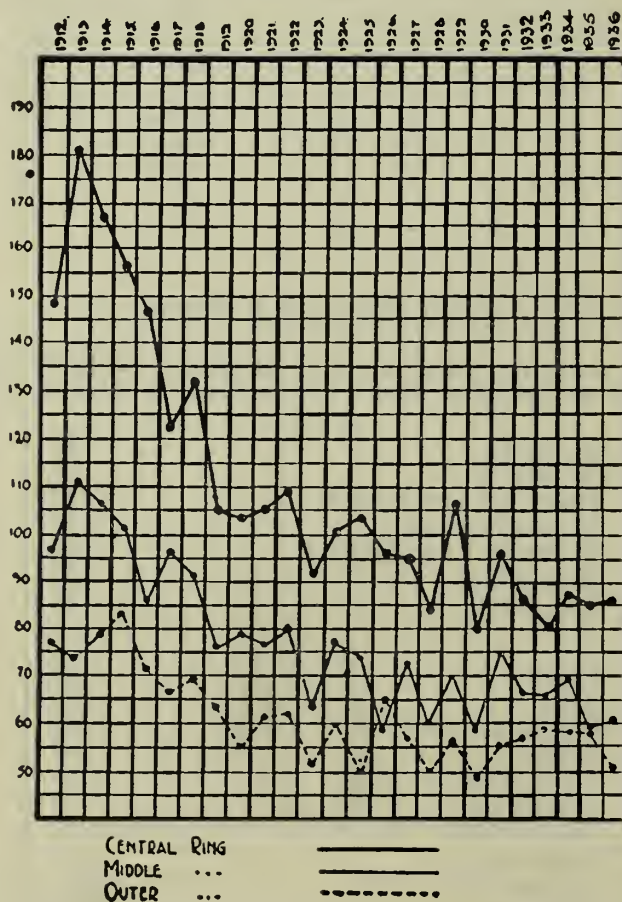
Outer Ring :

Soho	.....	.....	.....	.....	.....	93
Sandwell	.....	.....	.....	.....	.....	40
Handsworth	.....	.....	.....	.....	.....	46
Perry Barr	.....	.....	.....	.....	.....	56
Erdington	.....	.....	.....	.....	.....	53
Gravelly Hill	.....	.....	.....	.....	.....	34
Bromford	.....	.....	.....	.....	.....	33
Stechford	.....	.....	.....	.....	.....	69
Yardley	.....	.....	.....	.....	.....	62
Acocks Green	.....	.....	.....	.....	.....	50
Hall Green	.....	.....	.....	.....	.....	53
Sparkhill	.....	.....	.....	.....	.....	53
Moseley and King's Heath	.....	.....	.....	.....	.....	54
Selly Oak	.....	.....	.....	.....	.....	41
King's Norton	.....	.....	.....	.....	.....	37
Northfield	.....	.....	.....	.....	.....	53
Harborne	.....	.....	.....	.....	.....	65

Average :
 In 1936—52
 In 1935—58
 In 1934—58
 In 1925—50

The following diagram shows the fall in infantile mortality in each of the three groups of Wards during the past 25 years. It will be noted that the decrease has been much more marked in the Central areas than in the other parts of the town, and that the range in the sectional rates last year was only from 52 to 87 whereas in 1913 it was from 74 to 181. The approximation of the rates in the middle and outer rings is, perhaps, associated with the fresh distribution of population arising from the re-housing operations of the City.

INFANT MORTALITY RATES.



INFANTILE MORTALITY DURING THE YEAR, 1936.

Deaths from stated Causes in Weeks and Months under One Year of Age.

Cause of Death.	Weeks.				Total under One Month.	Months.				Total Deaths under One Year
	0—	1—	2—	3—		1—	3—	6—	9—	
Measles	—	—	—	—	—	—	—	3	5	8
Scarlet Fever	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	—	—	1	1	15	17	19	14	66
Diphtheria and Croup	—	—	—	—	—	1	1	1	1	4
Influenza	—	—	—	—	—	1	1	1	—	3
Tuberculous Meningitis	—	—	—	—	—	—	—	1	1	2
Abdominal Tuberculosis	—	—	—	—	—	—	—	1	—	1
Other Tuberculous Diseases	—	—	—	—	—	2	1	4	2	9
Rickets	—	—	—	—	—	2	2	3	—	7
Syphilis	—	—	1	—	1	—	—	—	1	2
Cerebro-Spinal Fever	—	—	—	—	—	1	1	3	3	8
Meningitis (not Tuberculous)	—	—	—	—	—	1	—	—	1	2
Convulsions	—	1	—	—	1	1	1	—	—	3
Bronchitis	1	1	1	—	3	2	5	2	2	14
Pneumonia (all forms)	4	1	5	4	14	34	40	39	22	149
Gastritis	—	—	—	—	—	—	—	1	—	1
Diarrhoea, Enteritis, etc.	—	1	1	2	4	23	34	14	7	82
Congenital Malformations	46	14	7	6	73	18	9	7	3	110
Premature Birth	240	12	11	6	269	21	1	1	—	292
Atrophy, Debility and Marasmus	5	2	—	—	7	8	2	1	2	20
Atelectasis	28	—	1	1	30	3	—	—	—	33
Injury at Birth	52	4	1	—	57	4	—	—	—	61
Neglect (under 3 months)	3	—	—	—	3	—	—	—	—	3
Suffocation (overlying)	—	—	1	—	1	1	1	—	—	3
Other Causes	16	4	3	2	25	24	43	27	19	138
All Causes	395	40	32	22	489	162	159	128	83	1021
Rate per 1,000 live Births	24.1	2.4	2.0	1.3	29.8	9.9	9.7	7.8	5.1	62

INFANTS' DEATHS FROM "OTHER CAUSES." (See preceding Table).

	1936.		1935.		1934.	
	Under 1 Month.	Total	Under 1 Month.	Total.	Under 1 Month.	Total.
Acute otitis media	—	32	—	28	1	33
„ mastoiditis	1	22	—	2	—	4
„ septic infections	1	19	4	22	12	36
New growths	—	1	—	—	—	3
Accidents	3	14	—	5	—	10
Congenital diseases	18	23	13	18	10	19
Other conditions	2	27	9	46	20	43
	25	138	26	121	43	148

The next table shows the number of infant deaths from the more prominent causes of death during the last five years.

INFANT DEATHS FROM DIFFERENT CAUSES.

	1936.	1935.	1934.	1933.	1932.
Measles	8	11	4	18	9
Whooping cough	66	26	52	14	60
Influenza	3	5	6	8	11
Tuberculosis	12	12	7	14	8
Convulsions	3	4	4	10	17
Bronchitis	14	9	16	36	19
Pneumonia	149	136	144	185	195
Diarrhoea and enteritis	82	115	127	106	122
Suffocation (overlying)	3	4	—	3	4
Congenital malformation	110	114	97	113	96
Premature birth	292	330	310	295	323
Injury at birth	61	56	61	36	48
Atrophy, debility and marasmus	20	18	20	20	30
Other causes.....	198	184	213	140	178
TOTAL	1,021	1,024	1,061	998	1,120

INFANT MORTALITY AND ILLEGITIMACY.

The following figures show the relative mortality among legitimate and illegitimate infants for the past year :—

	No. of Births.	Deaths under 1 year.	Infant mortality per 1,000.
Legitimate ...	15,833	963	61
Illegitimate ...	553	58	105

The infant mortality rates during recent years were as follows :—

	Infant Mortality Rates per 1,000 Births.			
	Legitimate.	Average.	Illegitimate.	Average.
1921	81	78	135	149
1922	82		178	
1923	69		151	
1924	81		142	
1925	76		139	
1926	70	68	150	128
1927	73		135	
1928	63		111	
1929	77		128	
1930	58		117	
1931	70	66	122	113
1932	65		125	
1933	64		119	
1934	66		106	
1935	63		91	
1936	61		105	

NEO-NATAL MORTALITY.

During the last 25 years there has been a decline in the mortality rate amongst children under 4 weeks of age, as will be seen from the table below.

	BIRMINGHAM.		ENGLAND AND WALES.	
	Rate per 1,000 live births.	Average.	Rate per 1,000 live births.	Average.
1912	42.1	40.6	38	38
1913	41.0		39	
1914	42.3		39	
1915	37.0		38	
1916	35.8	36.3	37	37
1917	38.3		37	
1918	35.7		36	
1919	37.1		40	
1920	34.4	33.5	35	33
1921	35.0		35	
1922	34.4		34	
1923	31.1		32	
1924	34.6	31.0	33	33
1925	32.2		32	
1926	31.1		32	
1927	33.3		32	
1928	29.7	32.3	31	31
1929	32.3		33	
1930	28.7		31	
1931	32.2		32	
1932	32.7	32.3	32	31
1933	30.8		32	
1934	32.6		31	
1935	33.4		30	
1936	29.8		—	

STILLBIRTHS.

The net number of stillbirths for the year was 590, equal to 35 per 1,000 of the live and stillbirths, as compared with the rate of 33 in 1935.

The following table shows the number of stillbirths over a number of years:—

	Stillbirths.	Average	Percentage of total live births.	Average.
1912	667	710	3.0	3.2
1913	679		2.9	
1914	762		3.3	
1915	732		3.5	
1916	729	711	3.5	3.5
1917	580		3.3	
1918	590		3.5	
1919	744		3.8	
1920	911	649	3.6	3.3
1921	804		3.6	
1922	660		3.3	
1923	629		3.3	
1924	544	596	3.0	3.5
1925	609		3.4	
1926	585		3.3	
1927	521		3.0	
1928	595	604	3.5	3.7
1929	590		3.5	
1930	688		4.0	
1931	697		4.1	
1932	603	604	3.6	3.7
1933	591		3.9	
1934	580		3.7	
1935	548		3.4	
1936	590		3.6	

NEO-NATAL DEATHS AND STILLBIRTHS.

The loss of life from neo-natal deaths (i.e. deaths within 4 weeks from birth) and stillbirths continues unabated. A slight improvement in the number of neo-natal deaths has been counter-balanced by a slight rise in the stillbirth rate.

Enquiries made in relation to cases of still-births and neo-natal deaths indicate that the place of occurrence of birth was as follows :—

Where Birth took place	Neo-natal deaths.	Stillbirths.
At Home	284	282
Hospital or Institution	157	302
No information	48	6
Total	<u>489</u>	<u>590</u>

Neo-natal Deaths.

Age at Death	
1 day	267
2-7 days	135
Over one week	61
No information	26
Total	<u>489</u>

No. of mothers in above cases who attended welfare centre, 150 or 31%.

No. of mothers visited by Health Visitors who attended ante-natal clinics, 62%.

Causes of Death.

The neo-natal deaths have been classified in a similar way to the still-births—that is, according to the fundamental or predisposing causes, rather than according to the immediate causes. For example the great majority of neo-natal deaths are due to prematurity, but in many of these the true cause is toxæmia, ante-partum hæmorrhage, cardiac disease or other abnormal conditions in the mother resulting in premature birth. Similarly many cases certified as dying of convulsions or atelectasis are more accurately classed to abnormal labour.

Ante-natal causes—

(including toxæmia, nephritis, placenta prævia, accidental hæmorrhage, cardiac disease, etc.)	101
---	-----

Intra-natal causes—

(including instrumental deliveries, prolonged or difficult labour, precipitate labour, etc.)	81
--	----

Foetal abnormalities—

(including spina bifida, meningocele, congenital deformities, congenital heart disease, etc.)	78
---	----

Post-natal conditions—

(including pneumonia, hæmorrhagic disease, accidents, infections, etc.)	71
---	----

Prematurity, with no other apparent cause	137
No information	21

489

Very many cases included in the 137 deaths due apparently to prematurity alone, could probably, with more complete information be assigned partly to ante-natal causes.

Further many cases in the group "post-natal conditions" died of infections to which they were rendered more liable by prematurity and were therefore probably also in part due to ante-natal causes.

The figures emphasise again the importance of ante-natal care and obstetrics in the prevention not only of stillbirths but also of neo-natal deaths.

Stillbirths—

Number of women who attended welfare centres for ante-natal care—206 or 35 per cent.

Causes of Stillbirths—

Ante-natal causes	...	...	...	...	...	...	...	...	278
Intra-natal causes	...	...	...	...	...	...	...	...	200
Foetal abnormalities	...	...	...	...	...	...	...	...	68
Prematurity (with no other apparent cause)	...	...	...	...	...	...	...	...	22
No information	...	...	...	...	...	...	...	...	22
									<hr/> 590 <hr/>

DEATHS OF CHILDREN BETWEEN 1 AND 5 YEARS OLD.

These are set out in the table below, distinguishing those under 2 years from those over 2.

	1 to 2 years old,				2 to 5 years old,			
	1936.	1935.	1934.	1933.	1936.	1935.	1934.	1933.
Measles	14	22	10	37	12	13	4	16
Whooping cough	20	14	37	13	19	24	24	6
Diphtheria	1	3	3	2	22	19	25	10
Scarlet fever	1	0	4	1	1	5	5	3
Influenza	3	2	2	5	0	1	3	6
Tuberculosis	9	8	7	11	12	16	20	24
Nervous diseases	15	13	14	10	9	12	12	7
Bronchitis and pneumonia	37	38	53	66	24	20	32	27
Diarrhoea and enteritis	6	8	10	12	1	5	6	6
Other digestive diseases	6	4	7	6	10	10	12	13
Accidental deaths	3	3	6	2	16	13	23	23
All other causes	16	18	18	16	19	30	18	24
Total	<hr/> 131 <hr/>	<hr/> 133 <hr/>	<hr/> 171 <hr/>	<hr/> 181 <hr/>	<hr/> 145 <hr/>	<hr/> 168 <hr/>	<hr/> 184 <hr/>	<hr/> 165 <hr/>

The following table shows the deaths and death-rates among children between one and five years compared with the average figures for previous years :—

	1—2 years		2—5 years	
	Deaths.	Average Death-rate per 1,000.	Deaths.	Average. Death-rate per 1,000.
1912—15	821	45.9	697	12.2
1916—20	579	32.2	568	9.9
1921—25	451	23.7	323	5.8
1926—30	309	19.3	233	4.9
1931—35	194	12.9	181	3.8
1936	131	8.8	145	3.3

The figures show that a great reduction has occurred in the mortality amongst toddlers during recent years, a reduction of 81 per cent. being recorded in the death-rate from one to two years, and of 73 per cent. in that for the age period two to five years in 1936 as compared with the figures for 1912-15.

MATERNAL MORTALITY IN CHILDBIRTH.

The deaths of women classed to pregnancy and child-bearing in Birmingham during 1936 numbered 60. The number of live births was 16,386, giving a maternal mortality rate per 1,000 births of 3.67.

The maternal mortality in previous years is shown in the table below:—

	Puerperal Fever.	Deaths from Other Puerperal Causes.	Rate per 1,000 live Births (total). Birmingham.	England and Wales.
1911	36	48	3.82	3.87
1912	27	45	3.25	3.98
1913	44	48	3.86	3.96
1914	33	41	3.19	4.17
1915	35	38	3.44	4.18
1916	31	40	3.44	4.12
1917	26	20	2.60	3.89
1918	29	22	3.03	3.79
1919	23	28	2.64	4.37
1920	51	39	3.59	4.33
1921	26	37	2.84	3.92
1922	25	35	3.02	3.81
1923	34	33	3.51	3.82
1924	37	35	3.91	3.90
1925	35	39	4.15	4.08
1926	41	33	4.13	4.12
1927	25	37	3.59	4.11
1928	32	34	3.83	4.42
1929	26	41	3.99	4.83
1930	27	32	3.39	4.40
1931	28	37	3.81	4.11
1932	28	34	3.73	4.21
1933	25	31	3.72	4.51
1934	29	31	3.83	4.60
1935	23	33	3.52	4.10
1936	25	35	3.67	3.81

The rates calculated on live and still-births for 1936 were:—

Birmingham	...	...	...	3.53
England and Wales	...	...	...	3.65

The causes of death as given on the death certificates may be classified as follows:—

Puerperal sepsis (after confinement or abortion)	...	...	...	...	...	25
Puerperal haemorrhage	...	...	...	...	...	14
Albuminuria and convulsions	...	...	...	...	...	6
Accidents of pregnancy (abortion, ectopic gestation, etc.)	...	...	...	...	...	6
Embolism	...	...	...	...	...	4
Other causes	...	...	...	...	...	5

COMPARATIVE MATERNAL MORTALITY IN 11 LARGEST TOWNS.

		Deaths per 1,000 live Births from :—		
		Other		
		Puerperal Sepsis.	Puerperal Causes.	Total.
London	...	0.75	1.17	1.92
Glasgow	...	2.56	3.19	5.75
Birmingham	...	1.53	2.14	3.67
Liverpool	...	1.15	2.53	3.68
Manchester	...	1.76	3.44	5.20
Sheffield	...	1.39	2.66	4.05
Leeds	...	1.36	1.91	3.27
Edinburgh	...	1.90	3.70	5.60
Bristol	...	1.52	1.69	3.21
Hull	...	1.35	2.04	3.39
Bradford	...	1.54	3.33	4.87

MATERNAL MORTALITY ENQUIRY.

At the request of the Ministry of Health a medical enquiry has been made in the case of every maternal death in childbirth during each year since 1929. The information obtained during 1936 has been tabulated as follows :—

Total deaths of women associated with pregnancy and childbirth—78.

GROUPS.

I.	Deaths from intercurrent disease	.....	.....	.....	.....	.....	.....	.....	.....	17
II.	Deaths from child bearing	.....	.....	.....	.....	.....	.....	.....	.....	61

GROUP I. Deaths from Intercurrent Disease—17.

Parity. Primipara 6. Multipara 11.

Illegitimate. 0.

Ages. Under 20—0. 20-30—5. 30-40—10. Over 40—2.

<i>Cause of death.</i>	Pneumonia	.....	.....	.....	.....	.....	.....	6
	Empyema	.....	.....	.....	.....	.....	.....	1
	Heart disease	.....	.....	.....	.....	.....	.....	4
	Phthisis	.....	.....	.....	.....	.....	.....	1
	Abdominal neoplasm	.....	.....	.....	.....	.....	.....	1
	Encephalitis	.....	.....	.....	.....	.....	.....	1
	Thrombosis of sagittal sinus	.....	.....	.....	.....	.....	.....	1
	Ovarian abscess with general peritonitis	.....	.....	.....	.....	.....	.....	2

Treated in hospital—16 cases.

Ante-natal care. Nil—4. Some—4. Sufficient—9.

Home Conditions. Good—10. Fair—5. Poor—2.

Period of Pregnancy. Full term—2. 36-40 weeks—5. 32-36 weeks—3. 28-32 weeks—1. 24-28 weeks—2. Under 24 weeks—4.

Notes on these deaths.

Death was apparently inevitable in 13 of these cases—but the four heart cases should never have been allowed to become pregnant, as they were all severe cases ; three of these cases also had very little ante-natal care, and one had none, as she refused to seek advice. More should be done for these heart cases by (1) birth control clinics ; (2) hospitalization during pregnancy, to secure adequate rest ; (3) delivery in hospital.

GROUP II. Deaths from Child Bearing=Total 61.

(a)	Deaths from abortion	.....	.....	.....	.....	9
(b)	„ „ sepsis	.....	.....	.....	.....	17
(c)	„ „ toxaemia	.....	.....	.....	.....	10
(d)	„ „ haemorrhage	.....	.....	.....	.....	10
(e)	„ „ other causes	.....	.....	.....	.....	15

(a) *Deaths from abortion*—Total 9.

Parity. Primipara—2. Multipara—7.

Illegitimate. 1.

Ages. Under 20—0. 20-30—3. 30-40—5. Over 40—1.

Cause of death. In every case—sepsis.

Interference 3

Delay in treatment 5 (In each case due to patient's fault).

Home conditions. Good—6. Fair—2. Poor—1.

Period of Pregnancy. Under 12 weeks—6. 12-16 weeks—0. 16-20 weeks—1. 20-24 weeks—0. 24-28 weeks—1. Unknown—1.

(b) }
(c) } *Deaths from Puerperal Sepsis, Toxaemia and Haemorrhage.*
(d) }

These are shown in a subsequent table.

Notes on these Deaths.

(b) *Sepsis*—17 cases.

In 6 of these cases the labour was complicated :—

Manual removal	.....	.....	.....	.....	.....	1
Post-partum haemorrhage (untreated)	.....	.....	.....	.....	.....	1
Forceps	.....	.....	.....	.....	.....	4

In 1 case the source of infection was probably the midwife, who had a cold and herpes—and in another the husband, who had a sore throat.

In 2 cases there was no ante-natal care (fault of patients), and in another 2, the ante-natal care was insufficient (fault of patients). In these last 2 cases there was a marked degree of anaemia which probably predisposed to sepsis. One case was dirty in her person and clothing, and had septic teeth, which she refused to have treated.

In the remaining 4 cases, no source of infection can be traced, but it is interesting to note that in each of these four cases no masks were worn by the attendant, and in 2 cases no gloves either.

(c) *Toxaemia*—10 cases.

Death seems to have been inevitable in 2 cases. It might have been prevented in 3 cases by better co-operation of the patient, and in 4 cases by better ante-natal care, and in 1 case by better management of labour.

(d) *Haemorrhage*—10 cases. 5 ante-partum haemorrhage, 5 post-partum haemorrhage.

Death appears to have been inevitable in 3 cases ; but in 2 cases it might have been avoided if the patient had been transferred to hospital earlier (both cases of placenta praevia, untreated until dangerously anaemic), and in 4 cases death might have been avoided by better management of labour—in these last 4 cases no attempt was made to treat the post-partum haemorrhage by salines or transfusion. One other case delivered herself while under the influence of drink, and no one was with her to control haemorrhage.

Emergency Maternity Service. The emergency service was not used in any of these cases, though, as indicated above, this might have saved life in 4 cases.

(e) *Deaths from other causes*—15 cases.

Causes of death.

Ruptured uterus	.....	.....	.....	.....	.....	3
Pulmonary embolism	.....	.....	.....	.....	.....	7
Shock (after difficult labour)	.....	.....	.....	.....	.....	3
Acute inversion of uterus	.....	.....	.....	.....	.....	1
Puerperal mania	.....	.....	.....	.....	.....	1

Parity. Primipara—5. Multipara—10.

Notes on these deaths.

Inevitable	.....	.....	.....	.....	.....	6
Poor co-operation of patient	.....	.....	.....	.....	.....	4
Inadequate ante-natal care	.....	.....	.....	.....	.....	2
Bad management of labour	.....	.....	.....	.....	.....	3

Deaths from pulmonary embolism.

These can be tabulated as follows :—

Heart disease	.....	.....	.....	.....	.....	2
Thrombosed varicose veins (but no pyrexia)	.....	.....	.....	.....	.....	1
White leg (no pyrexia noted)	.....	.....	.....	.....	.....	1
Pyelonephrosis but no uterine sepsis (P.M.)	.....	.....	.....	.....	.....	1
No cause found	.....	.....	.....	.....	.....	2

(1 directly after labour. 1 on ninth day).

Summary and Comparison with 1934 and 1935.

	1936		1935		1934	
	Primipara.	Multipara.	Primipara.	Multipara.	Primipara.	Multipara.
Abortions	2	7	3	4	3	11
Obstetric causes	21	31	30	18	20	22
Intercurrent conditions	6	11	7	7	4	14
	29	49	40	29	27	47

Relative Mortality Figures for Cases Booking with Doctor, Midwife or Hospital.

Of 52 deaths from obstetric causes (*i.e.*, omitting deaths from abortions and intercurrent disease) the bookings were as follows :—

	Sepsis	Toxaemia	Haemorrhage	Other causes	Total	Inevitable in
Booked with doctor	4	5	4	3	16	2
„ „ midwife	9	0	3	8	20	3
„ „ hospital	4	3	2	3	12	5
Not booked	0	2	1	1	4	1

MATERNAL DEATHS.

(b) From sepsis—17. (c) From toxæmia—10. (d) From hæmorrhage—10.

	Puerperal Sepsis.	Toxæmia		Hæmorrhage.	Total.
		Eclampsia with Convulsions.	No Convulsions.		
TOTAL	17	4	6	10	37
AGE GROUPS.					
Under 20 years	—	—	1	—	1
20—30 „	11	2	2	4	19
30—40 „	4	2	1	5	12
Over 40 „	2	—	2	1	5
PARITY.					
Primipara	9	3	3	1	16
Multipara	8	1	3	9	21
HOME CONDITIONS.					
Good	8	2	5	6	21
Fair	5	1	1	2	9
Poor	4	1	—	2	7
PERIOD OF PREGNANCY.					
36—40 weeks	16	2	3	7	28
Less than 36 weeks	1	2	3	3	9
ANTE-NATAL CARE.					
By { Doctor	5	3	4	4	16
Midwife	—	—	—	—	—
M. & C. W. Centre	6	1	—	3	10
Hospital	4	—	1	1	6
Nil	2	—	1	2	5
ATTENDANCE AT DELIVERY					
Doctor	7	1	—	4	12
Midwife	7	—	—	—	7
Doctor or Midwife then sent to hospital	1	1	3	2	7
Hospital	2	1	2	1	6
Nil	—	1	1	3	5
				(2 undelivered)	
TREATED IN HOSPITAL	17	4	6	10	37

PUERPERAL SEPSIS.

There were 96 cases of puerperal fever and 168 cases of puerperal pyrexia during the year, 20 being cases of persons residing outside the City but removed for confinement to Birmingham institutions. The corresponding numbers in 1935 were: 104 cases of puerperal fever, 172 cases of puerperal pyrexia and 16 out-City cases.

In the 244 Birmingham residents detailed information was obtained. 130 were removed to hospital for treatment.

Women's Hospital	...	...	...	97
Dudley Road Hospital	...	...	...	15
Selly Oak Hospital	...	...	...	11
Maternity Hospital	...	...	...	3
Other Hospitals	...	...	...	4
				<hr/> 130

The number of cases in primiparae was 102; in multiparae 106. The parity was not known in 36 cases.

The period of pregnancy was as follows:—

Premature	...	...	...	...	21
Full term	...	...	...	...	189
Post Mature	...	...	...	...	3
Abortions	...	...	...	...	28
No information	...	...	...	...	3
					<hr/> 244

Out of the 244 cases of puerperal fever or pyrexia where information was obtained, 19 died, 4 following abortion.

Under the scheme arranged by the Maternity and Child Welfare Committee, a consultant was called in at home by the medical attendant in 18 cases.

The ante-natal care in the 244 cases was as follows:—

Doctor	...	...	...	...	...	54	
Doctor and midwife	...	...	...	...	...	3	
Midwife	...	...	...	...	...	2	
Welfare Centre and Hospital	...	...	...	...	...	1	} 58 or 24 per cent. attended the ante-natal clinics at the child welfare centres
Midwife and Welfare Centre	...	...	...	...	...	3	
Doctor and Welfare Centre	...	...	...	...	...	4	
Welfare Centre	...	...	...	...	...	50	
Hospitals	...	...	...	...	...	55	
Nursing Homes	...	...	...	...	...	20	
Welfare Centre and Nursing Home	...	...	...	...	...	1	
No ante-natal care	...	...	...	...	...	26	
No information	...	...	...	...	...	25	
						<hr/> 244	

The attendance at the ante-natal clinics at the child welfare centres was 58 per cent. of all maternity cases.

In the 244 Birmingham cases in which information was obtained the following complications of the actual labour were present (frequently more than one complication per case).

Vaginal and perineal tear	...	...	...	66
Instrumental delivery	...	...	...	37
Post partum haemorrhage	...	...	...	32
Abortion	...	...	...	29
Retained products	...	...	...	25
Manual removal of placenta	...	...	...	15
Breech presentation	...	...	...	9
Caesarean Section	...	...	...	8
Ante-partum haemorrhage	...	...	...	3
Placenta praevia	...	...	...	2
Internal version	...	...	...	2

No complication of labour was noted in 76 of these 244 cases.

OPHTHALMIA NEONATORUM.

812 cases of discharging eyes were notified to this Department during 1936. The great majority of these were not cases of ophthalmia neonatorum due to gonococci, but were reactions following prophylactic treatment, or mild catarrhs. 73 cases were admitted to the Eye Hospital and 74 other cases were of moderate severity.

In two cases blindness in one eye resulted and in one other case there was scarring of the cornea. In two out of these three cases the mother was a known case of venereal disease and was under treatment at hospital.

The Health Visitors and Midwives Inspectors paid 2,425 effective visits to notified cases.

PEMPHIGUS NEONATORUM.

10 cases of pemphigus neonatorum were reported during 1936. Six were removed to hospital.

MATERNITY AND CHILD WELFARE SERVICE.

TRAINING COURSE FOR HEALTH VISITORS.

A course was commenced on September 1st, 1936, and was continued until March 17th, 1937. Twenty-three candidates completed the course, nine taking the Birmingham Assisted Course, two being entered by the Sussex County Nursing Association and the remaining twelve being independent candidates from all parts of the country.

The students sat for the examination of the Royal Sanitary Institute in Birmingham on March 18th, 19th and 20th, 21 being successful.

The course has followed the usual lines. Special work has included Infant Life Protection, Venereal Disease, attendance at the Feed Room of the Children's Hospital, the Juvenile Employment Bureau, the Almoner's Department at the General Hospital and attendance at the Public Assistance Offices while applicants were interviewed by a Relieving Officer. In addition to the usual visits of observation, a special visit was paid to the Orthoptic Clinic at the Eye Hospital and the Children's Hospital, when modern methods of treating squint were demonstrated.

MATERNITY AND CHILD WELFARE STAFF.

No. of health visitors—98.

89 attached to child welfare centres.

9 special visitors, mainly visiting non-notifiable infectious disease.

Superintendent of Health Visitors—1

Assistant Superintendent of Health Visitors—1

Midwives' Inspectors—2

Dental Nurses—2

Tutor for Training Course—1

Immunisation Nurse—1

Special Workers—3

Foster Mother Scheme, Unmarried Mothers, Home Helps

Remedial Gymnast—1

Medical Officers—Whole-time, 15; Part-time, 20

Dentists—Whole-time, 1; Part-time, 1

Class Mistresses—Cookery, 4; Sewing, 3

HEALTH VISITING.

The Health Visitors undertake home visiting for children under the age of five, ante-natal home visiting, and also the visiting required for non-notifiable infectious disease, and ophthalmia neonatorum. In order to cope with the outbreaks of infection in different localities, nine visitors are employed for specialised work in the latter connection, the general health visitors dealing with sporadic cases in their localities.

The Health Visitors carry out the Centre work in addition to home visiting.

Total visits to children under 5 years, 279,374; total visits to expectant mothers—18,749; other visits—36,939; all visits—335,062.

CHILD WELFARE CENTRES.

(a) Number of centres provided and maintained by the City Council—30.

(b) Number of centres provided and maintained by a Voluntary Association—1.

(c) Total number of attendances at ordinary consultations at all centres during the year:

(1) By children under 1 year of age—141,191.

(2) By children between the ages of 1 and 5 years—78,084.

- (d) Total number of children who attended ordinary consultations at the centres for the *first time* during the year:
- (1) Children under 1 year of age—11,987 or 71 per cent. of the births.
 - (2) Children between the ages of 1 and 5 years—2,991.
- (e) Total number of children who were in attendance at the centres throughout the year:
- (1) Children under 1 year of age—10,076.
 - (2) Children between the age of 1 and 5 years—25,157.

Percentage of children between 1 and 5 years (total in City approximately 58,000) attending Child Welfare Centres (e) (2) 43 per cent.

Number of fresh children attending special medical inspection clinics for children 2 to 5 years—5,493, with 18,452 attendances.

In 1936 the Carnegie Institute had the highest number of individual children registered as attending the children's consultation, viz: 2,250, followed by Monument Road with 1,859, Acocks Green with 1,819, Wright Street Centre with 1,687, and Sutton Street Centre with 1,606.

No new Centres were opened during the year.

There was a well marked increase in the attendances at the consultations for mothers and children.

The toddlers' special classes continue to be popular, and are held at 25 centres. Several centres have physical improvement classes for mothers, which have proved helpful and interesting to the women.

The remedial exercise clinics for toddlers have done excellent work and could be extended with advantage. The numbers attending have steadily increased in the last three years.

The various clinics at the child welfare centres have been well attended and the educational work has reached a high standard. A table is given showing the increase in the centre work during the last fifteen years. The increase in attendances at the clinics is remarkable, particularly in relation to the work for expectant mothers. The work for "toddlers" has been greatly extended, and is shown in the special medical inspections. The increase in the educational work is notable. The actual number of births recorded is 3,200 less than in 1921, which was a "peak" year, following the War.

ATTENDANCES AT CHILD WELFARE CENTRES DURING 1921 AND 1936.

					1921. 21	1936. 31
Number of centres	...	...	...	...
Infants and Children :—						
Births (stillbirths) reported	...	...	...	...	19,360	16,106
Primary Visits	...	...	...	...	18,718	15,806
Re-visits (infants and children)	...	...	...	...	169,482	262,097
Total visits and re-visits	...	...	...	...	188,200	279,374
Mothers :—						
Primary visits	...	...	...	...	3,291	2,021
Re-visits	...	...	...	...	6,425	16,728
Total visits and re-visits	...	...	...	...	9,716	18,749
Children's Consultations :—						
Number held	...	...	...	...	2,610	3,687
Fresh children attending	...	...	...	...	14,988	14,978
Total attendances	...	...	...	...	130,321	200,823
Number seen by doctor	...	...	...	...	58,910	86,161
Special Medical Inspections (1½—5 years) :—						
Number held	...	...	...	...	Nil	1,141
Total attendances	...	...	...	...	Nil	18,452
Mothers' Consultations (ante-natal) :—						
Number held	...	...	...	...	824	2,318
Fresh mothers attending	...	...	...	...	4,683	9,427
Total attendances	...	...	...	...	10,380	37,212
Attendance at :—						
Sewing classes	...	...	...	...	9,335	17,569
Cookery classes	...	...	...	...	1,645	2,583
Health talks	...	...	...	...	20,685	67,474

{ Different
method of
calculation
now in
force.

MATERNITY AND CHILD WELFARE CENTRES, 1936.

CENTRES.	Infants and Children.				Mothers' (Ante-Natal Visits).	Children's Consultations.					Special Medical Inspection (1½ to 5 yr)			Mother's Consultations (Ante-Natal).			
	Births reported.	Primary Visits.	Re-visits.	Total Visits.		Number held.	Fresh Children Attending.	Total Attendances.	Average per Consultation.	Number seen by Doctor.	Number held.	Total Attendances.	Average per Consultation.	Number held.	Fresh Mothers Attending.	Total Attendances.	Average per Consultation
Acocks Green	601	562	11610	12205	1016	149	724	10023	67	3618	49	1053	21	100	382	1750	18
Billesley	387	405	7854	8299	416	97	346	4302	44	1983	51	793	16	49	190	728	15
Bloomsbury Street	733	724	12217	13046	718	150	575	7972	53	3472	51	798	16	147	563	1939	13
Bromford	384	386	6071	6484	539	102	265	5429	53	2209	49	999	20	50	219	1036	21
Carnegie Institute	945	948	11412	12496	1023	247	1057	14337	58	5932	51	762	15	147	612	2223	15
Erdington	591	574	6393	6999	338	150	483	9719	65	3218	50	809	16	96	287	1437	15
Floodgate Street	392	424	7346	7814	597	99	386	4660	47	2524	—	—	—	51	290	926	18
Glebe Farm	337	309	5987	6303	430	51	223	2551	50	1183	—	—	—	38	119	589	16
Greet	635	581	12039	12680	644	100	481	6696	67	2729	49	887	18	97	360	1473	15
Handsworth	445	426	6459	6928	315	99	343	4875	49	2103	51	753	15	49	196	873	18
Harborne	307	300	3593	3896	382	98	254	4007	41	1750	—	—	—	23	125	470	20
Hay Mills	622	616	9116	9798	612	98	451	6241	64	2491	49	744	15	52	284	978	19
Hope Street	787	768	13633	14518	912	98	588	5837	59	2197	48	763	16	71	397	1309	18
Irving Street	408	442	7625	8109	469	98	408	5924	60	2362	—	—	—	49	181	673	14
Kettlehouse	209	183	4253	4447	330	98	362	4618	47	2524	33	536	16	51	206	868	17
King's Heath	422	389	4462	4857	358	100	340	4759	48	2084	—	—	—	48	133	684	14
Kingstanding	480	541	11845	12502	1132	172	619	8539	50	4128	50	737	13	103	398	1784	17
Lancaster Street	589	650	11873	12592	892	150	675	7389	49	3209	51	802	16	101	445	1758	17
Lansdowne Street	576	541	8017	8595	678	100	317	4618	46	2285	49	691	14	72	272	1003	14
Monument Road	870	828	14250	15186	917	200	821	10598	53	4155	51	760	15	148	560	2205	17
Northfield	469	462	7301	7788	379	99	421	6016	61	2616	47	665	14	50	253	1081	22
Selly Oak	321	302	4905	5221	389	100	353	5009	50	2493	—	—	—	51	173	1001	20
Stechford	352	346	5638	6008	438	100	394	5191	52	2391	47	829	18	48	189	713	15
Stirchley	601	560	7822	8405	522	100	502	5873	59	2485	3	39	13	49	224	762	15
Stratford Road	551	566	11964	12611	784	99	599	6222	63	2088	49	737	15	98	324	1336	14
Sutton Street	661	688	11952	12703	923	197	674	10090	51	4385	49	827	17	100	635	1928	19
Trinity Road	568	522	5414	5963	397	131	575	7691	59	3225	48	860	18	101	301	1363	13
Walsall Road	318	340	2991	3355	306	58	365	3502	64	1461	18	253	14	51	120	591	12
Washwood Heath	433	426	6640	7087	277	100	361	5527	55	2215	49	832	17	73	300	1079	15
Weoley Castle	296	273	7527	7806	646	99	323	4523	46	2277	48	762	16	50	204	787	17
Wright Street	816	724	13888	14673	970	148	693	8085	55	4369	51	761	15	105	485	1865	18
TOTALS	16106	15806	262097	279374	18749	3687	14978	200823	54	86161	1141	18452	16	2318	9427	37212	16

INDIVIDUAL CHILDREN ATTENDING CENTRES IN 1936.

Acock's Green	...	...	1,819	Lansdowne Street	...	...	960
Billesley	...	...	1,020	Monument Road	...	...	1,859
Bloomsbury Street	...	...	1,384	Northfield	...	...	1,024
Bromford	...	...	874	Plowden Road (Glebe Farm)	...	...	354
Carnegie Institute	...	...	2,250	Selly Oak	...	...	636
Erdington	...	...	1,282	Stechford	...	...	1,259
Floodgate Street	...	...	403	Stirchley	...	...	1,051
Greet	...	...	1,258	Stratford Road	...	...	1,391
Handsworth	...	...	839	Sutton Street	...	...	1,606
Harborne	...	...	588	Trinity Road	...	...	1,445
Hay Mills	...	...	1,162	Walsall Road	...	...	644
Hope Street	...	...	1,355	Washwood Heath	...	...	920
Irving Street	...	...	838	Weoley Castle	...	...	998
Kettlehouse	...	...	815	Wright Street	...	...	1,687
King's Heath	...	...	727				
Kingstanding	...	...	1,555				35,233
Lancaster Street	...	...	1,230				
Under 1 year			...	...	...	10,076	
Over 1 year			...	...	...	25,157	

MEDICAL INSPECTION OF CHILDREN FROM TWO TO FIVE YEARS.

Special sessions are devoted to the medical examination of children from 2 to 5 years at child welfare centres. The number of such sessions during the year was 1,141, and the total attendances were 18,452, giving an average attendance of 16.

The total number of children attending during the year was 9,833 and 5,493 of these had not attended in previous years. Children are asked to return every quarter for examination and it is hoped eventually to cover almost all the children in this age group; the present figure represents about one seventh of the total. It must be clearly understood that children of this age group also attend the ordinary children's consultations at the child welfare centres and are regularly visited at home.

The "defects" noted at the special medical inspections have been classified as shown below. Of the 9,833 children examined, 5,846 were suffering from one or more "defect", i.e., 59 per cent., a high proportion which emphasises the need for such special examinations. No less than 11.7 per cent of the children examined suffered from acute illness during the year.

In considering individual groups some allowance must be made for the individual medical officer's point of view in relation to the conditions found. For instance when a heart murmur is found, certain medical officers may classify it as congenital, others as rheumatic, and others regard it as secondary to anaemia. In relation to rickety deformations, certain medical officers are interested in these and note them more particularly than others. It may be taken, however, that no gross defect is omitted from the record though minor defects may not have been noted in a proportion of the children. This divergence of standard makes the observation of environmental factors of little value, so "unsuitable clothing" alone is included in the table; it is satisfactory that so few cases are noted.

In practically all cases some treatment was obtained where required, but it was not always continued as long as appeared advisable.

Number of children who attended the Medical Inspection Clinics during 1936... 9,833

Number of these children noted as suffering from one or more of the defects or diseases in the attached list (N.B. *Not* number of defects) ... 5,846 59 %

Number of these children noted as having had an acute illness during 1936, e.g., pneumonia, infectious diseases, etc. ... 1,149 11.7%

<i>Eyes</i>	Defect or Disease	No. of Cases.	Percentage of Children Examined.
	Squint	275	2.8
	Inflammatory conditions, e.g., conjunctivitis, corneal ulcer, blepharitis	159	1.6
	Other eye conditions, e.g., cataract, blindness	24	0.2
<i>Skin</i>			
	Eczema	85	0.9
	Purulent conditions, e.g., impetigo, septic spots, folliculitis, boils	187	1.9
<i>Ear, nose and throat</i>			
	Otorrhoea	164	1.7
	Deafness	16	0.2
	Enlarged or diseased tonsils and/or adenoids	2,113	21.5
	Nasal obstruction and/or mouth breathing ...	179	1.8
<i>Teeth</i>			
	Carious or defective	1,958	20.0
<i>Glands</i>			
	Enlarged or palpable submaxillary or cervical glands	849	8.6
<i>Heart</i>			
	Congenital heart disease (when definitely diagnosed)	40	0.4
	Rheumatic heart disease (when definitely diagnosed)	45	0.5
<i>Anaemia</i>		330	3.4
<i>Lungs</i>			
	Any abnormality — including bronchitis, bronchiectasis, fibrosis, unresolved broncho-pneumonia, rhonchi, rales, dullness, etc., but not including cases of "cough" with no noted physical signs in lungs	461	4.7
<i>Rickets</i>			
	Active rickets (when definitely diagnosed as such)	156	1.6
	Rachitic deformities, e.g., bow legs, knock knee	1,039	10.6
<i>Other deformities</i>			
	Flat foot, kyphosis, scoliosis, talipes, torticollis, dislocated hip, pigeon chest, any other deformity	736	7.5
<i>Mentality</i>			
	Backwardness from any cause ...	91	0.9
<i>Speech</i>			
	Backward or defective	331	3.4
<i>Other defects</i>			
	Hernia, chorea, lipuria, etc.	22	0.2
<i>Environmental conditions</i>			
	Unsuitable clothing	297	3.0

ANTE-NATAL CLINICS AT CHILD WELFARE CENTRES.

The average number of ante-natal clinics held weekly is 46 and the average attendance is 16 per clinic. 62 per cent. of the women seen by Health Visitors in 1936 attended these clinics. This is an increase of 2 per cent. on the previous year. The midwives are co-operating excellently and the great majority make every effort to secure their patients' attendance. A special consultation clinic is held weekly at Lancaster Street Centre.

Year.	No. of Sessions.	No. of fresh expectant mothers attending ante-natal clinics.	Total attendances.	Births and Still-births	Births and Still-births visited.	Percentage of mothers visited attending ante-natal clinics.
1916	No record	561	No record	21,347	8,143	7
1917	"	538	"	18,286	9,143	6
1918	"	1,603	3,275	17,430	12,044	13
1919	"	2,940	6,250	20,079	15,154	19
1920	857	3,939	8,812	25,980	21,006	19
1921	824	4,683	10,380	22,938	18,718	25
1922	800	4,095	8,450	20,510	16,254	25
1923	890	4,386	9,391	19,698	16,193	27
1924	981	4,043	10,395	18,934	15,969	25
1925	1,034	4,346	11,135	18,445	15,647	28
1926	1,117	4,630	12,043	18,517	15,626	30
1927	1,188	4,615	12,252	17,773	16,217	28
1928	1,304	6,098	15,803	17,817	16,186	38
1929	1,522	7,308	19,751	17,393	16,522	44
1930	2,071	9,466	28,323	18,105	17,828	53
1931	2,090	8,616	27,608	17,740	16,937	51
1932	1,892	8,174	25,983	17,219	16,190	50
1933	1,905	8,290	26,538	15,645	14,975	55
1934	1,953	8,867	28,719	16,261	15,161	58
1935	2,203	9,200	32,871	16,459	15,500	60
1936	2,368	9,771	37,556	16,976	15,806	62

Ante-natal Clinics are also held at Dudley Road and Selly Oak Hospitals, at the Maternity Hospital and at the City Maternity Homes at Heathfield Road, and Wake Green Road. In 1936 the number of mothers attending numbered 5,552—probably a large number of these attended child welfare centres also.

ULTRA VIOLET LIGHT CLINICS AT CHILD WELFARE CENTRES.

Condition.	Total No of Cases.	No. of New Cases.	No. of Attendances.
1. Rickets, prophylactic rickets and delayed dentition	3,469	1,319	15,943
2. Catarrhal Children	813	314	3,795
3. General debility	1,820	728	8,059
4. Nervous irritability	67	25	376
5. Chronic chest conditions	831	303	3,737
6. Asthma	55	14	308
7. Muscular weakness	271	114	1,245
8. Malnutrition	170	73	831
9. Skin conditions	18	7	92
10. Anorexia	189	68	870
11. Enlarged glands	37	19	172
12. Other conditions	484	220	2,188
	8,224	3,204	37,616

The clinics are situated at the following Centres :—

Bloomsbury Street, Carnegie Institute, Floodgate Street, Greet, Harborne, Hope Street, Kingstanding, Lancaster Street, Monument Road, Sutton Street, Selly Oak, Stirchley, Stratford Road, Wright Street.

The total attendances show an increase of almost 10,000 compared with 1935, while 2,710 more children were treated.

REMEDIAL EXERCISE CLINICS FOR TODDLERS.

	No. of Prescribing Clinics held.	No. attending.	No. of Remedial Clinics held.	No. of Attendances.
Carnegie Institute	6	74	50	930
Selly Oak	6	58	45	1,030
Kingstanding	5	82	45	1,000
Wright Street	6	80	50	956
Stratford Road	7	137	48	908
Lancaster Street	6	87	46	938
Monument Road	7	92	50	688
	43	610	334	6,450

Type of Deformity.	No. of cases of defect.	Percentage of Total cases of defect.
Genu valgum	477	25.3%
Postural defects	437	23.3%
Chest deformities	333	17.6%
Flat feet	308	16.4%
Hypotonicity	123	6.5%
Constipation	72	4.3%
Kyphosis	67	3.5%
Genu varum	36	1.9%
Lordosis	10	.5%
Scoliosis	7	.3%
Winged scapulæ	4	.2%
Hemiplegia	2	.1%
Infantile paralysis	2	.1%
	1,878	100%

	No. attending.	No. of attendances.
1933	564	4,997
1934	417	5,857
1935	637	6,136
1936	610	6,450

DENTAL TREATMENT.

	Stratford Road.	Carnegie Institute.	Lancaster St.	Selly Oak	Total.
Number of clinics held	229	206	173	49	657
Mothers attending	3,062	2,823	1,976	444	8,305
Children attending	1,383	1,155	1,359	509	4,406
Average attendance (Mothers)	13	14	11	8	—
(Children)	6	6	8	10	—
Local anaesthetics	81	57	65	16	219
Gas	2,187	1,767	1,967	876	6,797
Dentures supplied	341	336	203	—	880

TREATMENT OF EAR, NOSE, THROAT AND EYE CONDITIONS.

Cases referred from Child Welfare Centres and examined during 1936 at the Children's Hospital for the treatment of the above conditions were as follows:—

Eyes, ear and throat cases	...	...	...	...	410
Tonsils and adenoids (operation required)	...	...	...	...	509
Tonsils and adenoids (examination only)	...	...	...	...	261

THE PROVISION OF FOOD FOR NECESSITOUS MOTHERS AND CHILDREN.
MUNICIPAL KITCHEN AND FEEDING CENTRES.

The meals provided are uniformly appreciated. The usual two course meal, consisting of meat two vegetables and pudding, is served for both mothers and toddlers and the latter are given a glass of milk and some fruit in addition.

Attendances

Newtown Row	8,818	108,549
Hope Street	...	...	...	8,107
River Street	...	...	...	9,538
Bloomsbury Street	...	...	...	7,998
Carnegie Institute	...	...	...	8,932
Sutton Street	...	...	...	9,187
Monument Road	...	...	...	15,171
Lancaster Street	...	...	...	7,659
Handsworth	...	...	...	3,526
Irving Street	...	...	...	8,543
Kingstanding	...	...	...	7,808
Lansdowne Street	...	...	...	5,067
Wright Street	...	...	...	8,195
Total Attendances: { Mothers	36,395	108,549
{ Toddlers	...	...	...	72,154

Numbers of individual mothers and children who received dinners at some period during 1936.

					Mothers.	Toddlers.
Newtown Row	...	...	...	...	64	88
Hope Street	...	...	...	...	72	135
River Street	...	...	...	...	64	102
Bloomsbury Street	...	...	...	...	70	118
Carnegie Institute	...	...	...	...	70	132
Sutton Street	...	...	...	...	42	58
Monument Road	...	...	...	...	116	190
Lancaster Street	...	...	...	...	54	114
Handsworth	...	...	...	...	16	27
Irving Street	...	...	...	...	82	134
Kingstanding	...	...	...	...	48	94
Lansdowne Street	...	...	...	...	31	52
Wright Street	...	...	...	...	76	108
					805	1,352

Cost

						£	s.	d.
Cost of food	...	...	...	...	...	1,548	7	3
Cost of transport	...	...	...	...	...	230	17	0
						1,779	4	3
Receipts from Centres	...	...	...	...	...	327	4	7
						£1,451	19	8

Net cost per meal excluding wages and overhead charges 3.2d.

Approximate total cost per meal including wages and overhead charges 5.3d.

TODDLERS' "BREAKFAST" MEALS.

At 18 Centres, half a pint of milk and bread and butter were served to toddlers at 9 a.m. on five days during the week, and half a pint of milk was taken home to be given to the children later in the day.

No. of individual children attending	...	...	...	...	...	...	1,355
Total attendances made	...	...	...	...	...	...	104,476

CARNEGIE INFANT WELFARE INSTITUTE.

During the year 1936 the routine work of the Centre has proceeded as usual.

The attendances at all clinics have been satisfactory and the total attendances at infant consultations exceed by 300 the attendances made during 1935.

The educational classes have been well attended and the practical cookery class is much appreciated.

The Toddlers' class under Mrs. Moseley continues to do excellent work. Several children from the Parents' Guidance Clinic have been referred to this class and have particularly benefited.

The Parents' League of Health has had a very successful year, and six lectures have been given. The garments made during the winter by members of the league have been most useful. Many children attend the centre insufficiently clad and it is always difficult to find suitable garments for them.

The Dramatic Society gave three one-act plays at Christmas. A member of the voluntary committee produced one of them. The rehearsals for the others were undertaken by members of the staff in the evening, so that the fathers might take part. The scenery was made by the fathers and showed much skill and ingenuity.

A Baby Week was held from July 6th to 9th. An exhibition "The Baby Arrives" was open each day. A special feature was a competition for school children, who were asked to write an essay on "What does the City do, to keep people healthy?" There were a great many entries and the prize winning essays were very good.

The Mothers' Committee continue to give most valuable help. By special efforts funds were raised and 67 cwts. of coal were distributed at Christmas.

The attendances at the Carnegie Institute were as follows:—

	No. held.	Total Attendances.
General infant consultations	247	14,337
Medical inspections (18 months to 5 years)	51	762
Ante-natal clinics	147	2,223
X-ray clinics	49	460
Dental clinics (treatment)	200	<div style="display: inline-block; vertical-align: middle;"> <div style="display: inline-block; vertical-align: middle;">2,795 mothers</div> <div style="display: inline-block; vertical-align: middle;">1,107 children</div> </div>
Light clinics (treatment)	89	
Remedial exercises (treatment)	51	954
Sewing classes	47	668
Cookery classes	37	283
Mothercraft classes	26	160
Health talks	304	4,125
Parents' Guidance clinics	52	172

THE OBSERVATION WARD CARNEGIE INSTITUTE.

During the year 1936 158 children were admitted to the ward and the average length of stay was 20 days.

Two mothers were also admitted because they were breast feeding ill children.

There was 1 case of re-admission and 7 deaths. Excluding 10 healthy children admitted for investigation prior to adoption, there were 148 ailing children. Of these:—

66 were discharged as cured.
45 were discharged as improved.
28 were discharged as in status quo.

During the year 9 children were transferred to Canwell Hall for further treatment—the majority of these being chronic chest cases. Three were transferred to the Children's Hospital for operation. Six children were sent to Little Bromwich Hospital—2 with whooping-cough, 2 with measles and 2 with dysentery.

Three cases were transferred to Yardley Green Road Sanatorium. The 7 deaths were due to:

Pyelitis	...	...	...	...	1
Broncho-pneumonia	...	...	...	...	2
Aspiration pneumonia	...	...	...	...	1
Gastro-enteritis	...	...	...	...	2
Erythroedema	...	...	...	...	1

As in previous years, the reason for admission to the ward was chiefly for the investigation of children in a debilitated condition, or of those failing to make normal progress—mentally or physically. 53 per cent. were markedly under weight.

Amongst the toddlers, chest conditions again headed the list and nutritional anaemia came second, whilst among the babies feeding difficulties and gastro-intestinal symptoms were the chief factors. Many of the cases proved to be of great medical interest.

THE PARENTS' GUIDANCE CLINIC.

The Parents' Guidance Clinic, opened in January, 1934, at the Carnegie Institute to assist parents in the management of difficult children, with Dr. J Hammond, of Wolverhampton, as the medical psychologist, and Dr. Ursula Cox as his assistant, has proved a very helpful feature of the Child Welfare Scheme.

Altogether 138 children have attended with a total of 280 attendances.

The Medical Officers at the Child Welfare Centres recommend the mothers to attend and fill in an appropriate report form, which is supplemented by a report from the Superintendent of the Centre. The Clinic is held weekly. The reports from medical officers and health visitors show good results in a large proportion of cases.

The chief difficulties for which the mothers seek advice are fears of various kinds, e.g., night terrors, etc., unruly and aggressive behaviour, jealousy, enuresis, anorexia, and so forth.

Many mothers have expressed their appreciation of the help which they have received at this clinic.

HOME HELPS.

67 Home Helps were employed during 1936. Owing to the high standard required it is difficult to increase the number, though more are needed.

The Home Helps attended 1,128 cases in 1936—i.e., 220 more than in the preceding year.

Cases under the extended scheme included several of acute rheumatism, pneumonia, post influenza, fractured ankle, and numerous ante-natal cases.

The Home Helps' wages were increased from 5/- to 6/- per day (including food allowance) and the full fee to be paid for their service was in consequence raised to 6/- per day. This has been paid without demur by those people from whom it has been asked.

The women have been kept almost continuously employed, and the reports, taking into consideration the varied types of patients and their demands, have been extraordinarily good.

The homes attended included those of factory workers, tram and bus conductors and drivers, shop assistants, lorry drivers, members of the police force, clerks and travellers, as well as many unemployed. The largest demand for their service appears to come from Kingstanding, Bromford, Small Heath, Acocks Green, Billesley and Weoley Castle.

CITY BABIES' HOSPITAL.

CANWELL HALL (84 beds).

The demand for beds has never been heavier than in 1936. Although this shows appreciation of the work of the institution, it has meant refusing admission to many children who would have materially benefited.

There was a rise in the number of cases of active rickets admitted and a disquieting feature was the severity of certain of the cases. This implies no cessation of effort on the part of health visitors, but is the effect of malnutrition and insufficient sunlight and occurs when the mother fails to make use of the child welfare centres where ultra violet light clinics and other means of protection against this deficiency disease are available free of cost. The increasing prosperity of Birmingham implies a greater degree of atmospheric pollution and an increase of the likelihood of rickets.

Particular attention is paid in the hospital to the diagnosis of tubercular infection, and every child is tested by the Mantoux method. Twenty-two cases were found to be positive and in no less than six of these, the parents were suffering from tuberculosis; in five others whooping cough was followed by a prolonged illness; four of the children were very ill. Five were under 12 months old and nine under 2 years. Seven of the 22 cases were transferred to Yardley Green Road Sanatorium.

General debility predominated among the causes for admission but 63 children were suffering from non-tubercular lung condition and 43 from severe anaemia. There were 24 deaths, 18 in infants, the majority from a terminal lung or bowel infection in a feeble infant.

The chief outbreaks of infection were as follows:—

Dysentery.

There were two outbreaks of Sonne dysentery in February (7 cases) and in November (7 cases). The first outbreak spread in the admission ward from a positive case in spite of all the usual precautions having apparently been taken. The cases were very mild. In November cases again occurred in an admission ward and were followed by 2 sporadic cases. A nurse was found to be a carrier. No further cases occurred after her suspension from duty. The cases were of a mild type.

Whooping Cough.

Twenty-six cases occurred following two separate admissions, one of these was not diagnosed within the admission isolation period of three weeks, so that further spread was inevitable.

Cases of measles, German measles, chicken-pox and scarlet fever were reported. Contacts were affected in the cases of chicken-pox (14) and measles (5), but all the cases were of a mild type.

<i>Number of Admissions.</i>				<i>Number of Discharges.</i>			
0—1 years	...	...	194	Well	...	...	120
1—2 years	...	...	153	Improved	...	...	333
2—5 years	...	...	177	In status quo	...	...	40
<hr/>				<hr/>			
524				493			
<hr/>				<hr/>			

Number of children in home at end of year—73.

Number of deaths—20.

Of the total number of discharges, 26 were removed by the parents against medical advice. Of these 2 had not completed the initial period of 3 weeks.

The diagnosed cases discharged home were classified as follows:—

	0-1 yr.	1-2 yrs.	2-5 yrs.	Total.
Anaemia	16	12	15	43
Acute chest conditions	21	2	1	24
Chronic chest conditions	9	14	16	39
Cardiac disease	1	1	3	5
Ear conditions (acute)	15	3	4	22
Tuberculosis	5	9	8	22
Gastro-enteritis	18	5	2	25
General debility and malnutrition	41	4	67	112
Hostel babies	8	1	—	9
Hypertrophied and septic tonsils	8	8	13	29
Mismanaged	4	1	3	8
Mentally deficient	2	0	1	3
Pink disease (Erythroedema)	2	2	3	7
Rickets	4	14	3	21
Urinary diseases	4	3	1	8
Malnutrition	15	13	16	44
Other conditions	3	4	4	11
	176	96	160	432

Cases transferred to other hospitals:—

To the Children's Hospital—13 cases.

Empyema following pneumonia	2
Atrophy and Dyspepsia	2 (For investigation)
Abdominal Tumor and Ascites	1
Acute Mastoids	2
Hare lip and cleft palate	1
Scurvy and otitis media	1
Haematoma of scalp	1
Adenoidectomy	1
Tuberculous broncho-pneumonia	1
Pylorospasm	1

To Selly Oak Hospital —2 cases.

Tonsillectomy	1
Rhinitis with chronic otitis media	1 (For operation)

To Lordswood Nursery—4 children.

To Yardley Sanatorium—7 cases.

Tubercular Spine	1
Tubercular Adenitis	1
Pulmonary Tuberculosis	4
Miliary Tuberculosis and mental deficiency	1

Causes of Death—

Acute Enteritis	4
Anaemia and Enteritis	1
Appendicitis and General Peritonitis	1
Broncho-Pneumonia	1
Broncho-Pneumonia and Enteritis	2
Broncho-Pneumonia and otitis media and enteritis	3
Otitis media and Broncho-Pneumonia	2
Otitis media	3
Otitis media and enteritis	1
Pyelonephritis and enteritis	1
Retropharyngeal abscess	1
	20

Classification of ages at death.

0—2 months	2—6 months	6—12 months	1—5 years
4	12	2	2

History of Infectious Disease—

Chicken-pox	...	...	...	14 cases
Whooping cough	...	...	...	26 cases
Morbilli	...	...	...	5 cases
Nasal Diphtheria	...	...	...	8 cases
Dysentery	...	...	...	14 cases
Rubella	...	...	...	1 case
Scarlet Fever	...	...	...	1 case
Paratyphoid	...	...	...	1 case

THE CONVALESCENT HOME FOR MOTHERS.

PYPE HAYES HALL, CHESTER ROAD, ERDINGTON.

(Beds—Mothers, 22; Babies, 20).

Total number of mothers admitted—441.

(Of these 60 were ante-natal cases)

Total number of babies admitted—385 (without mothers, 26).

The number of cases admitted was higher than in the previous year. The Medical Officer in charge of the home reports that a very large proportion of the women showed a very low standard of health and general physique. They showed signs of overstrain and anaemia, and malnutrition was generally present. The rapid improvement resulting from rest and the generous diet was very striking.

There were no outbreaks of infection.

It is unfortunate that greater use of the Home is not made in winter. The Staff were, however, kept fully employed by the admission of healthy babies whose mothers were unable to care for them owing to illness and for whom no other accommodation was available.

LORDSWOOD RESIDENT NURSERY.

(35 beds).

There were 97 admissions in 1936.

The number of admissions was less than in the previous year mainly owing to longer periods of stay in the Nursery and to outbreaks of infection. Whooping cough was introduced by a young infant and 15 children were affected; three unfortunately died. There was also an outbreak of german measles (7 cases), while sporadic cases of mumps (2), measles (2) and diphtheria (1) also caused anxiety. The german measles, measles and mumps were introduced by the nursing staff.

Twenty-two other cases of acute illness required hospital treatment for varying periods and eleven of these children died; of these 6 had been admitted ailing and were sent to hospital within 2 weeks.

A special admission ward with cubicles and central heating is urgently required as so many infants are admitted in poor health, often neglected and already suffering from infections, particularly of the lungs and bowels.

The nursing and general care of the children has been of a very high standard.

THE CITY MATERNITY HOMES.

THE WAKE GREEN ROAD MATERNITY HOME (SORRENTO).

During 1936 the number of admissions constituted a record and the results were excellent. At the same time this large amount of work has imposed a considerable strain on the permanent clinical and administrative staff and it is not proposed to maintain such a high admission rate in future.

There was no case of puerperal septicaemia. The one maternal death was due to central placenta praevia with an extremely severe and uncontrollable post partum haemorrhage.

The forceps rate was low, 5.5 per cent., but complications of labour occurred in 51 other cases, and 61 obstetric operations were required including 49 inductions of labour. There were only 9 cases of complication during the puerperium.

The high proportion of booked cases requiring treatment in the ante-natal ward is still noticeable and amounted to 35.5 per cent. (258 cases).

The post-natal clinics have been well used, 450 patients delivered in the wards attended by appointment. This proportion, 60 per cent., is very high and shows the increasing realisation of the value of examinations within two or three months of childbirth. Of the 761 babies born, only 5 per cent. failed to survive, the remaining 719 were discharged with their mothers, and of these infants 84 per cent. were breast fed.

Premature Baby Ward.

The premature baby ward has been well used by doctors and midwives in district practice, and 242 infants and 88 mothers were admitted during the year, an increase over the previous year's figures. Since the ward was opened six years ago, 931 premature infants have been admitted, with a survival rate of 62 per cent. Of these more than half were below 4 lbs in weight.

An attempt was made during the year to follow up 250 consecutive cases discharged from the ward during the previous 12 months. It proved possible to trace 163 cases, of whom 13 were reported dead (8 per cent.). The remainder 150 cases were examined by the medical officers. All those seen were over 12 months old; of these only four were definitely backward, 14 were rather small, but the remaining 132 were normal healthy children. These investigations show clearly the value of the work and the good ultimate results which can be obtained.

Total admissions to the Home—2,253 (including 761 babies born).

Maternity Wards.

Admissions	...	...	...	...	755
Primiparae	...	...	...	...	430
Multiparae	...	...	...	...	325
Booked cases	...	...	...	...	720
From ante-natal ward	...	...	...	...	35

Ante-natal Ward.

Admissions	...	...	...	...	390
Cases from other clinics	...	...	...	...	96
Booked cases for treatment	...	...	...	...	258
Booked cases for observation	...	...	...	...	36

Ante-natal Clinics.

No. held	...	...	...	...	219
Attendances	...	...	...	...	4,706
Average attendance	...	...	...	...	21

Post-natal Clinics.

No. held	...	...	...	...	29
Attendances	...	...	...	...	460
Average attendance	...	...	...	...	15

Premature Baby Ward.

Admissions	...	...	...	...	347
Babies	...	...	...	...	259
Mothers	...	...	...	...	88

Booked cases—720.

Unbooked cases admitted from ante-natal ward—35.

No. of babies born—761 (including six sets of twins).

I. *Complications of Pregnancy.*

See report of ante-natal ward.

II. *Complications of Labour.*

- (1) Twins—6 cases.
- (2) Breech presentations—18 cases.
- (3) Transverse presentations—2 cases.
- (4) Placenta praevia—2 cases.
- (5) Accidental haemorrhage—1 case.
- (6) Retained placenta—9 cases.
- (7) Post-partum haemorrhage—6 cases.
- (8) Perineal lacerations—311 or 41 per cent. of cases.
- (9) Prolapse of cord—2 cases.
- (10) Face presentation—6 cases.

Obstetric operations performed.

- (1) External version under anaesthetic—7 cases.
- (2) Operative induction of labour—49 cases.
- (3) Podalic version—2 cases.
- (4) Manual rotation of head (Occipito posterior position)—1 case.
- (5) Forceps applied in 42 cases, or 5.5 per cent.

III. *Complications of the Puerperium.*

- (1) Maternal Mortality—1 case. Central placenta praevia and severe post partum haemorrhage.
- (2) Maternal Morbidity.
Cases of pyrexia notified—9.
Cases of puerperal sepsis—Nil.

Cases of Pyrexia—					
Mastitis	...	...	...	...	3
Mild sapraemia	...	...	...	...	1
Pyelitis	...	...	...	...	2
White leg	...	...	...	...	2
Phthisis	...	...	...	...	1
					9

Babies.

Number born	...	...	...	...	761
Number stillborn	...	...	...	...	20 or 2.6 per cent.
Died in first 2 weeks	...	...	...	...	22 or 2.9 per cent.
No. born before 36 weeks	...	...	...	...	30 or 3.9 per cent.

Causes of Stillbirth.

Toxaemia	...	...	...	...	8
Difficult labour	...	...	...	...	3
Prolapsed cord	...	...	...	...	1
Hydrocephalus	...	...	...	...	1
Prematurity	...	...	...	...	2
Anencephalus	...	...	...	...	3
Macerated—? cause	...	...	...	...	2
					20

Causes of death in the first two years.

Intracranial birth injury	...	...	6
Congenital heart disease	...	...	4
Toxaemia	...	...	2
Grave familial jaundice	...	...	2
Prematurity	...	...	4
Haemorrhagic disease	...	...	2
Placenta praevia	...	...	2
Prolapsed cord	...	...	1
			<hr/> 23

Ante-natal Ward.

No. of cases admitted—booked	...	294
No. of cases admitted—unbooked	...	96
		<hr/> 390

Complications in booked cases.

Of the 294 cases admitted, 36 were admitted for observation only. The number with complications was 258 or 35.8 per cent of all booked cases.

Reason for admission.

Toxaemia	...	...	...	109
Heart disease	...	...	...	15
Chest conditions	...	...	...	1
Severe varicose veins	...	...	...	4
For induction (Post mature or slight disproportion)	...	...	...	59
Pyelitis	...	...	...	14
For external version	...	...	...	7
Vaginal discharge	...	...	...	3
Excessive vomiting	...	...	...	6
Epilepsy	...	...	...	3
Severe constipation	...	...	...	1
Glycosuria	...	...	...	1
Hysteria	...	...	...	1
For head fitting	...	...	...	2
Hydramnios	...	...	...	1
Diarrhoea	...	...	...	1
Ante-partum haemorrhage	...	...	...	22
For preventing abortion	...	...	...	3
For preventing premature labour	...	...	...	5
				<hr/> 258

Unbooked cases.

Total—96 cases.

Reason for admission.	No. of Cases.	Results.
Heart disease	10	1 kept for delivery
Toxaemia	53	30 kept for delivery
Severe anaemia	1	Transfusion and kept
Phlebitis	1	
Ante-partum haemorrhage	5	1 kept
Pyelitis	6	1 kept
Glycosuria	1	
Excessive vomiting	6	1 kept
Chorea	1	
Severe varicose veins	4	
Investigation	8	
	<hr/> 96	

Of 96 unbooked cases the number kept for delivery was 35 or 36.5 per cent. and 61 were returned to their home or the hospital from which they were sent—63.5 per cent.

Premature Baby Ward.

Number of premature infants admitted 242
 Number of weakly infants admitted 17
 Number of mothers (with infant) admitted 88

Premature Babies. Analysis according to weight.

Weight.	No. of cases.	No. of deaths.	% saved.
0—2 lbs.	7	7	0
2—3 lbs.	44	29	34
3—4 lbs.	75	20	73
4—5 lbs.	74	13	82
Over 5 lbs.	42	2	95
	<hr/> 242	<hr/> 71	<hr/> 71

Premature Babies. Analysis according to maturity.

	Cases.	Deaths.	% saved.
Up to 28 weeks	17	17	0
20 — 30 weeks	21	14	33
30 — 32 weeks	30	17	43
32 — 34 weeks	51	10	80
34 — 36 weeks	73	9	88
Over 36 weeks	50	4	92
	<hr/> 242	<hr/> 71	<hr/> 71

Causes of death.

Pneumonia	3 cases
Haemorrhagic disease	4 „
Intracranial birth injury	7 „
Oedema of Newborn	1 „
Severe toxaemia	1 „
Cavernous Sinus Thrombosis	1 „
Prematurity only	54 „
	<hr/> 71

These survival rates compare very favourably with those published in America and elsewhere and are particularly good when one realises that two-thirds of the deaths occur within the first 48 hours, or in other words, two-thirds of the infants who die are admitted in a moribund condition.

During the 6 years that this ward has been open, 931 premature infants have been admitted, with a survival rate of 62 per cent. and of these 931 infants 491 have been less than 4 lbs. in weight on admission.

Weakly Infants. (Full term) 17 cases admitted. Died—5 cases.

Causes of death.				
Marasmus	...	...	...	1 case
Atelectasis	...	...	...	1 case
Intracranial birth injury			...	3 cases
				<hr/> 5

“*Follow-up*” of 250 consecutive discharges from the Premature Baby Ward:—

250 infants of 1 year or more have been followed up.

Number traced	163
Number untraced	87

Of these 163 traced cases:—

Died during 1st year of life	13 or 8 per cent.
Fits	1 case
Backward	3 cases
Weakly	8 cases
Small	6 cases

CITY MATERNITY HOME.

HEATHFIELD ROAD, HANDSWORTH.

The Home has been fully utilised during the year, although alterations and decorations restricted the work for several weeks and led to the transfer of cases to the Wake Green Road Home. Pending the completion of the new block, a house was rented in Heathfield Road where the nurses were temporarily accommodated. The new block, which provides premises for the ante-natal clinic, for isolation and for nurses' accommodation, was completed in December and makes the Home a most satisfactory unit. A lift was installed in the main building and has improved the working capacity of the wards considerably.

It is gratifying to be able to report that the outbreaks of mastitis which have caused so much anxiety in the Home now appear to be under control. A detailed note and chart relating to the steps taken in 1936 are given and are of considerable interest. Future developments will show the ultimate value of these measures. As in all similar outbreaks the majority of the cases only developed after the patient had left the institution, so no accurate picture can be obtained without some system of "following up" cases. This method has been adopted.

The work of the Home has reached a high standard. There was no case of puerperal sepsis and the one maternal death was due to a pulmonary embolus and was inevitable in the circumstances. The attendance at the post-natal clinics equalled 57 per cent of the deliveries.

Maternity Wards. (17 beds).

Deliveries	...	...	...	...	442
Booked cases	...	...	...	...	411
Cases from ante-natal ward	...	...	...	...	31

Ante-natal Ward. (10 beds).

Admissions	...	...	...	...	254
Booked cases	...	...	...	...	179
Unbooked cases	...	...	...	...	75
(from child welfare centre clinics)					

Ante-natal Clinics.

No. held	...	...	...	...	194
Total attendances	...	...	...	...	2,833
Average attendance	...	...	...	...	14

Post-natal Clinics.

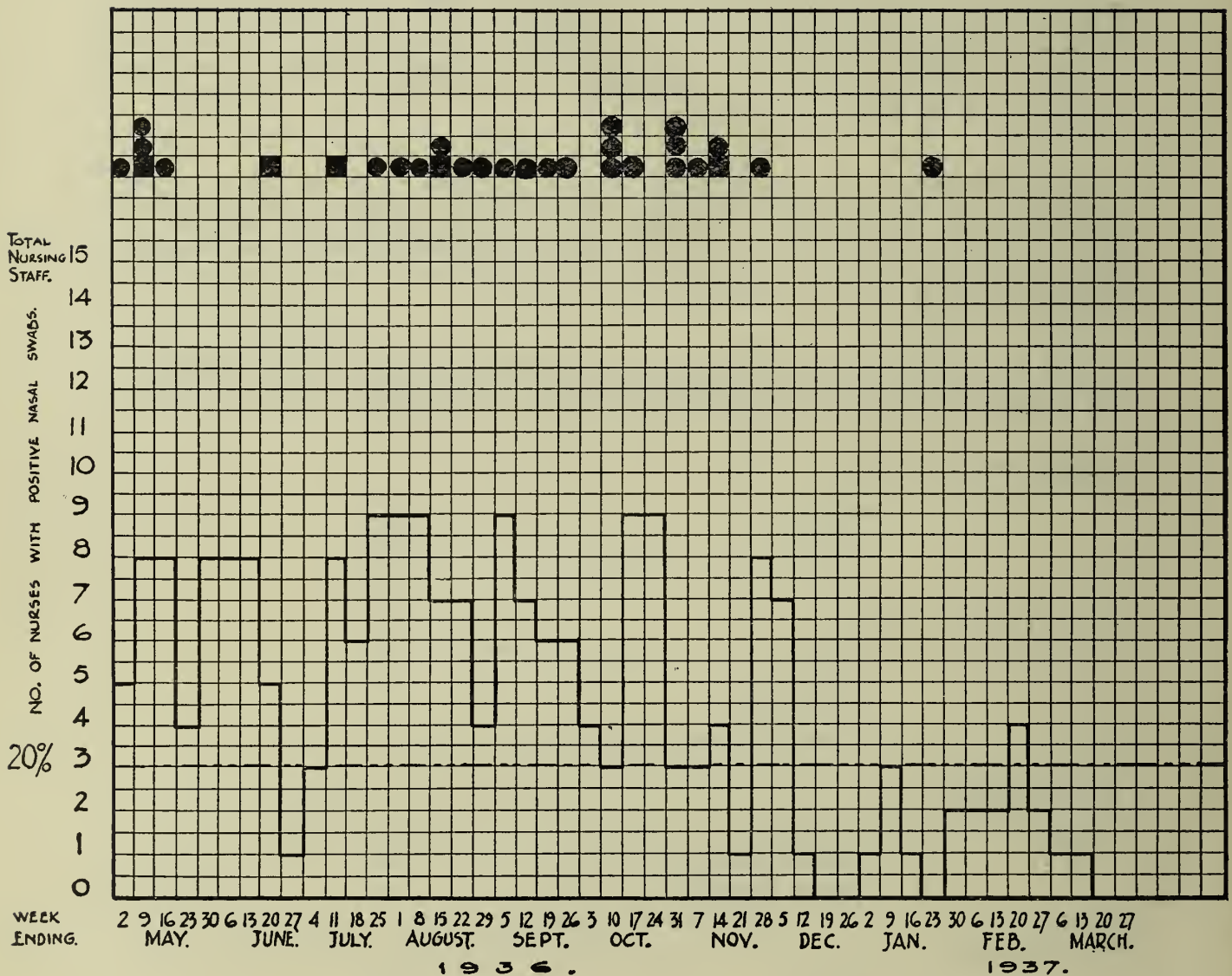
No. held	...	...	...	...	48
Total attendances	...	...	...	...	278
Average attendance	...	...	...	...	6

Mastitis.

The continuance of mastitis in spite of every suggested precaution, led to an approach on new lines. It is generally held that mastitis in women is most frequently due to an infection with *Staphylococcus aureus*. The City Bacteriologist made a personal investigation at the Home, and decided to approach the problem from a fresh angle. Nasal swabs showed that a high percentage of the staff were not only carriers of *Staphylococcus aureus*, but gave almost pure cultures, an unusual and striking result. In view of this, Dr. Henry advised that weekly swabs, one from each nostril, should be taken from the nursing and medical staff, and where positive followed by nasal spraying with crystal violet. This procedure has been carried out since the beginning of May, 1936. An attempt has been made to correlate these results with the incidence of cases of mastitis and a chart made to illustrate the findings.

CASES OF MASTITIS.

Occurring within six weeks of delivery.
 Charted according to date of delivery.
 ■ Indicates onset whilst in Institution.



STAPHYLOCOCCUS AUREUS CARRIER RATE.

Among nursing staff as shown by weekly nasal swabbing.

It will be noticed that since the beginning of December, 1936, the carrier rate re *Staphylococcus aureus* has only once exceeded 20 per cent. and during these four months only one case of mastitis has been reported. During the previous seven months the carrier rate was only twice below 20 per cent. and mastitis occurred as a fairly common complication after discharge from the Home.

These results are interesting as they emphasise the epidemic nature of the type of mastitis which has proved so troublesome, not only in the Heathfield Road Home, but in so many other maternity institutions. A similarity is seen to certain other infectious diseases where clinical cases only occur when the carrier rate is above a certain level.

Since the source of infection has been considered to be nasopharyngeal, particular care has been taken regarding the masking of not only the nursing but also the domestic staff. The masks now in use are about 8in. by 6in. in size—of two layers of material between which paper is inserted.

A bucket has been placed in a prominent position for used masks and this has helped to obviate the risk of masks being carried about in the pocket and subsequently reworn with the soiled side outwards. A fresh mask is supplied whenever a nurse goes on duty.

A further effort to reduce the infection has been made by continuous nasal spraying among the nursing staff. Crystal Violet 1/5000 has been used daily since June 6th, 1936, and any nurse with a positive swab has increased the treatment to thrice daily till the swab is returned negative.

The increased accommodation for nurses provided temporarily at 127, Heathfield Road until the new Home was completed was probably a factor in improving the general health of the staff, and preventing the intensification of carrier infection due to overcrowding. Since May 2nd, 1936, calcium sulphide grs. 1 b.d. with Adexolin 1 capsule o.d. have been prescribed during the last months of pregnancy and during the puerperium as a possible means of increasing the resistance to infection.

These measures have given most encouraging results and are being continued in the hope of preventing further outbreaks.

I. Maternity Ward. (17 beds).

Number of cases admitted	...	...	...	...	...	442
primiparae	...	...	...	...	...	244 (55 per cent.)
multiparae	...	...	...	...	...	198 (45 per cent.)
Booked cases	...	...	...	...	...	411
Unbooked cases (from Ante-natal ward)	...	...	...	...	...	31

(a) Complications of Labour.

Operative inductions	...	...	...	...	...	15 cases
Placenta praevia	...	...	...	...	...	2 cases
Accidental haemorrhage	...	...	...	...	...	1 case
Prolapsed cord	...	...	...	...	...	1 case
Twins	...	...	...	...	...	8 cases
Breech presentations	...	...	...	...	...	7 cases
Face presentation	...	...	...	...	...	1 case
Instrumental deliveries	...	...	...	...	...	30 cases (6.8 per cent.)
Episiotomy followed by normal labour	...	...	...	...	...	2 cases
Perineal lacerations	...	...	...	...	...	124 cases (28 per cent.)
Post partum haemorrhage (loss exceeded 20 oz.)	...	...	...	...	...	27 cases
Manual removal of placenta	...	...	...	...	...	1 case
Obstetric shock	...	...	...	...	...	1 case
Eclampsia (post partum)	...	...	...	...	...	2 cases

(b) Complications of Puerperium.

Maternal Mortality	...	...	...	...	...	1 case
(Pulmonary embolism following Femoral Thrombosis).						
Maternal Morbidity						
Mastitis	...	...	...	...	...	10 cases
Local Uterine Sepsis	...	...	...	...	...	3 cases
Tuberculosis	...	...	...	...	...	1 case
Scarlet Fever	...	...	...	...	...	1 case

II. Infants.

Number born	...	...	...	...	...	450
Number born prematurely (birth weight less than 5lbs.)	...	...	...	...	...	18 4 per cent.
Number still-born	...	...	...	...	...	14 3.1 per cent.
Number dying within two weeks	...	...	...	...	...	6 1.3 per cent.
Number of cases of notified ophthalmia	...	...	...	...	...	7

(a) Causes of Prematurity.

i Booked cases, 9						
Toxaemia	...	...	...	...	...	4
Twin pregnancy	...	...	...	...	...	2
No cause found	...	...	...	...	...	3
ii Unbooked cases, 9						
Toxaemia	...	...	...	...	...	6
Cervicitis	...	...	...	...	...	1
No cause found	...	...	...	...	...	2

(b) *Causes of stillbirths.*

i	Booked cases, 10					
	Toxaemia	...	...	...	...	5
	Premature separation of placenta	...	...	...	...	2
	Macerated (no cause found)	...	...	...	...	2
	Postmaturity	...	...	...	...	1
ii	Unbooked cases, 3					
	Toxaemia	...	...	...	...	1
	2nd Twin (no cause found)	...	...	...	...	1
	Cord round neck	...	...	...	...	1

(c) *Causes of death within two weeks.*

i	Booked cases, 3					
	Toxaemia with prematurity	...	...	...	...	1
	Prematurity (33 weeks gestation)	...	...	...	...	2
ii	Unbooked cases, 4					
	Toxaemia (labour induced)	...	...	...	...	1
	Twins (28 weeks gestation)	...	...	...	...	2
	Birth injury	...	...	...	...	1

III. *Ante-natal Ward.*

Total admissions (including readmissions)	...	...	254
Individual admissions	...	...	227
Unbooked cases	...	...	75
Booked cases	...	...	152

37 per cent. of booked cases admitted to ante-natal ward

Reason for admission.

	Booked.	Unbooked.
Toxaemia	52	30
Pyelitis	17	7
Cervicitis	6	5
Accidental haemorrhage	1	—
Hyperemesis	3	1
Anaemia	1	3
Cardiac disease	4	5
Phlebitis with varicose veins	10	2
Investigation of glycosuria	2	—
„ „ albuminuria	12	6
„ „ abdominal pain	1	3
Versions	4	1
Inductions	16	2
Prevention premature labour with abortion	6	3
Rest	13	2
Observation	—	5
Early Labour	4	—
	<hr/> 152	<hr/> 75

IV. *Clinics.*

(a) <i>Ante-natal.</i>	No. held.	New patients.	Consultations.	Total attendances.
Doctors' Clinics	... 147	529	86	2,455
Midwives' Clinics	... 47	—	—	378
	<hr/> Total 194	<hr/> 529	<hr/> 86	<hr/> 2,833

(b) *Post-natal.*

No. held.	No. of patients	Total attendances.	Attendance Rate.
48	251	278	57 per cent.

CARE OF THE UNMARRIED MOTHER.

The method of dealing with the unmarried mother, and with married women and widows with illegitimate children, was detailed in the annual reports for 1930 and 1931.

During 1936 the same procedure was followed as in 1935. A total of 350 unmarried mothers and 50 married women with illegitimate children were dealt with during 1936.

Of the total cases, 289 were first cases of illegitimacy.

The cases were dealt with as follows :—

Dealt with at	First cases.	Multiple cases.	Married Women.
Hope Lodge	59	—	—
The Hawthorns (Salvation Army)	24	12	2
Woodville (Roman Catholic).....	13	—	—
Cleveland House (Venereal Disease cases)	4	1	—
The Hostel (Post-natal only).....	8	1	—
Birmingham Infirmary	2	6	2
Greenhill Hostel	4	—	—
Own home, except for confinement	129	36	31
Own home entirely	46	5	15
	289	61	50

The number of cases with venereal disease was 22. All but two received systematic treatment.

V.D. cases—22.

Cases admitted to Cleveland House	...	...	...	...	...	5
Cases admitted to Western Road V. Block	...	...	...	...	...	8
Cases admitted to General Hospital	...	...	...	...	...	2
Cases attended Lancaster Street Clinic (babies born at Dudley Road Hospital	...	...	...	...	...	5
Refused treatment	...	...	...	...	...	2

The subsequent history of cases dealt with in previous years is given below :—

Cases dealt with.					Further pregnancies in 1936.			
					2nd.	3rd.	4th.	5th.
1935	416	...	...	...	2	3	—	1
1934	428	...	...	...	12	1	1	—
1933	451	...	...	...	8	3	—	—
1932	318	...	...	...	1	—	—	—
1931	239	...	...	...	1	—	—	—
1930	222	...	...	...	2	—	—	—

It may be interesting to note the number of very young girls during 1936; 99 of the cases were under 21 years of age and 14 of these cases were under the age of consent (8—16 years of age; 5—15 years of age; 1—13 years of age).

Of the 400 cases, 75 had no parents, 76 only a mother and 38 only a father (50 per cent.).

INFANT LIFE PROTECTION.

The supervision of foster mothers and children, extended under the Children and Young Persons' Act, 1932, applies to children up to the age of nine, and includes all children received for reward or promise of reward apart from their parents, even for limited periods.

The department receives many applications for recommendations of foster mothers as well as applications for foster children, the former being much more numerous. Advertisements for suitable foster mothers have proved necessary.

The department frequently assists suitable persons wishing to adopt children.

The foster mothers on the whole co-operate in the most friendly way with the health department and when difficulties arise they frequently call on the staff to assist in their settlement. Care is taken to maintain the mother's relationship with, and responsibility for, her child placed with a foster mother.

At the end of 1936, 347 foster mothers were on the register and 372 foster children under supervision.

During the year :—

- 177 applications were received for foster mothers.
- 170 applications were received for foster children.
- 387 foster mothers were interviewed at the Council House for advice and instruction.
- 355 homes were registered.
- 264 visits were paid to ascertain the suitability of homes offered.
- 659 special visits were paid.
- 176 routine visits were paid.

THE FOSTER MOTHER SERVICE.

The foster mother service which came into effect early in 1935, has proved to be of great benefit, especially to unmarried mothers who for economic reasons would be unable to choose for their children a home of reasonably good standing. Full details of the scheme were given in the report for 1934.

At the end of 1936 :—

- 122 foster mothers were in the scheme.
- 140 foster children were in the scheme.

A number of children under this service were removed for the following reasons :—

- 25 able to return to a responsible parent or relative.
- 12 legally adopted.
- 7 removed to an institution.
- 1 mother left City, child moved to be placed nearer the mother.
- 1 died.
- 17 removed to another foster mother under scheme.

The assistance given to parents under this scheme has continued to be of great practical help, and in many cases has been the means of enabling the child to remain secure and well cared for in the foster parent's family.

THE ADOPTION OF CHILDREN IN BIRMINGHAM.

Although adoption is not desirable in the majority of cases, it is in certain instances the only solution of a difficult problem and the best course to follow in the child's interest.

The undermentioned is a summary of adoptions arranged by this Department for the year 1936.

Interviews.

Applications for the adoption of children ...	79
Other interviews	187
	<hr/>
	266
	<hr/>

Visiting.

Homes inspected	97
Other visits (special)	104
	<hr/>
	201
	<hr/>
Homes rejected	3
Adoptions arranged by Public Health Dept.	50
Adoptions arranged for other Societies ...	3
Adoptions arranged privately	4
	<hr/>
Total adoptions	57
	<hr/>

Reasons for adoptions arranged by Public Health Department.

In	3	cases	husband and wife re-united, if illegitimate child adopted.
„	9	„	mother married and husband not willing to take the child.
„	13	„	mother has another child to support.
„	8	„	mother unable to support child.
„	5	„	mother's relatives object to keeping the baby.
„	6	„	unsatisfactory mother.
„	1	„	mother's continued ill-health, large family and unsatisfactory conditions. Child not in parents' care since early infancy.
„	3	„	mother cannot return home with baby as parents are unaware of the child.
„	2	„	mother proposes to re-marry.
„	3	„	adoption arranged for Societies.
„	4	„	adoption arranged privately.

57

Number of children adopted by foster parents—10.

SUPERVISION OF MIDWIVES.

During the year 1936, 238 midwives notified their intention to practise in the City. Of these 25 resided outside the City, and therefore do not come under routine inspections. Of the remainder, 10 were temporarily employed and 30 were attached to various institutions.

During the year, 13 midwives gave up work owing to various reasons, such as old age, ill-health, or from having taken up work elsewhere.

There were 161 residing in the City and having private practices at the end of 1935 and 180 at the end of 1936.

The midwives sent for medical help in 2,867 cases, for the mother in 2,052 instances and for the child in 815.

Reasons for sending for medical help:—

For Mother—2,052				For Child—815.			
Delayed labour	...	...	498	Ophthalmia	...	...	504
Laceration of perineum	...	...	660	Prematurity	...	...	86
Haemorrhage	...	...	182	Convulsions	...	...	4
Adherent placenta	...	...	69	Jaundice	...	...	19
Abnormal presentation	...	...	96	Deformity	...	...	44
Abortion or miscarriage	...	...	35	Skin eruptions	...	...	28
Rise of temperature	...	...	117	Other causes	...	...	130
Other causes	...	...	395				

Seven midwives were suspended during the year; four with an infected throat, 2 with septic fingers and one as a scarlet fever contact. In four instances it was found necessary to report a midwife to the Central Midwives' Board, and in one case the midwife was struck off the Roll.

The following table shows the number of cases taken by individual midwives:

Midwives taking under		50 cases per annum		84
„	„	50-100	„	52
„	„	100-150	„	19
„	„	150-200	„	8
„	„	over 200	„	4

The midwives attended 7,672 cases (45 per cent. of the births and stillbirths belonging to Birmingham), and in 2,901 cases they acted as maternity nurses (17 per cent. of the notified births); total, 62 per cent.

The following table is of interest :—

MIDWIVES' CASES—MEDICAL HELP CALLS.										
	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.
Total cases attended	10,921	10,655	10,934	9,398	9,894	9,205	7,933	7,555	7,496	7,672
Total medical help calls	2,518	3,236	3,026	3,360	3,065	2,706	2,256	2,479	2,607	2,867
Percentage of calls	23	30	28	36	31	29	28	33	35	37
Reasons :—										
Delayed labour	628	902	806	913	758	592	432	500	413	498
Lacerated perineum	494	641	674	775	708	620	539	550	580	660
Haemorrhage	133	210	190	213	220	186	158	165	179	182
Adherent placenta	94	104	85	79	61	71	56	75	55	69
Abnormal presentation	83	91	102	131	114	106	141	93	100	96
Discharging eyes	313	374	380	461	427	379	318	354	440	504
Other causes	773	914	789	788	777	752	612	742	840	858

The following visits were paid during the year by the Midwives' Inspectors :—

Routine visits to midwives	...	...	...	...	...	...	...	241
Special visits to midwives	...	...	...	...	...	...	...	169
Visits to stillbirths	...	...	...	...	...	...	...	418
Visits after neo-natal deaths	...	...	...	...	...	...	...	344
Visits to ophthalmia neonatorum cases	...	...	...	...	...	...	...	954
Visits to puerperal sepsis cases	...	...	...	...	...	...	...	155
Visits to nursing homes	...	...	...	...	...	...	...	52
Visits to handywomen	...	...	...	...	...	...	...	32
Other visits	...	...	...	...	...	...	...	187
Unsuccessful visits	...	...	...	...	...	...	...	501
The number of midwives interviewed was	...	...	...	...	...	...	...	389

District Midwifery.

Apart from admission to institutions, 11,578 women were delivered in private houses. The number of independent practising midwives is 175 and they attended 5,772 births as midwives and 2,901 as nurses. There are also 11 midwives employed in 9 districts (2 acting as assistants and relief midwives) for the training of midwife pupils from the Maternity Hospital. These women attended 1,900 cases, out of which 225 were also attended by medical students. Under a special arrangement made by the Queen's Hospital, medical students attended 241 cases at their homes. The balance of district midwifery (764 cases or 4 per cent.) was attended by doctors assisted by qualified monthly nurses, relatives or handywomen. In all, private medical practitioners attended 4,345 confinements or 24 per cent. of the total.

The Public Health Committee pay the midwife's fee in certain cases of unemployment where the maternity benefit has lapsed, provided the home conditions are suitable for the confinement. The fee was paid in 46 cases during 1936.

ATTENDANCE AT CHILDBIRTH.

The births occurring in the City during the year were as follows :

Births notified	...	...	...	16,831
Stillbirths notified	...	...	...	651
Failed to notify	...	...	...	272
				<hr/>
				17,754*
				<hr/>

*This figure does *not* include Birmingham confinements occurring outside the City, but includes the confinements of a number of persons whose residence was outside.

Medical practitioners attended 21 per cent. in the patients' homes, medical students 1 per cent., and midwives 43 per cent., while 35 per cent. of births occurred in institutions. This is set out in detail as follows:—

Cases at home attended by midwives.

(a) As midwives	*7,672—43%	} 10,573—60%
(b) As nurses	2,901—17%	

* This figure includes 1,900 cases attended by Maternity Hospital midwives, and also 680 cases where a Doctor was called in by a midwife.

Cases at home by Queen's Hospital Students 241— 1%

Cases attended at home by doctors assisted by nurses, other than midwives,
by relatives or handywomen* 764— 4%

*As shown above doctors attended also 17% with midwives as nurses.

Cases in Hospitals, Homes and Institutions:

At Dudley Road Hospital	1,158	} 6,176—35%
At Selly Oak Hospital	...	...	...	...	783
At Wake Green Road Home	...	...	...	...	755
At Heathfield Road Home	...	...	...	...	432
At Maternity Hospital	...	...	...	...	1,383
At Queen's Hospital	...	...	...	...	251
At St. Chad's Hospital	...	...	...	...	311
At Women's Hospital	...	...	...	...	41
At General Hospital	...	...	...	...	31
At Hope Lodge	...	...	...	...	37
At other institutions	...	...	...	...	2
At private nursing homes	...	...	...	...	992
Total 17,754						

EMERGENCY MATERNITY SERVICE.

In 1936 an emergency maternity service was inaugurated by the Public Health Department in consultation with the Maternity Hospital and St. John's Ambulance Brigade. The service is available for cases of obstetric shock and haemorrhage which are unfit for removal to hospital. In such cases the doctor in charge of the case in addition to obtaining the services of one of the obstetric consultants may also telephone to the Maternity Hospital for a special obstetric outfit and trained nurse to be sent to the case.

The nurse and the outfit are brought to the patient's house by ambulance, which is also available for subsequent transfer of the patient to hospital if necessary.

The service was used in five cases between July and December, in every case with benefit to the patient, and on at least one occasion the obstetric consultant expressed the opinion that the service had probably saved the patient's life. There has been no mortality among the cases in which it has been used.

NURSING HOMES.

At the end of 1936 there were 46 nursing homes in Birmingham. Five new homes were opened during the year and three homes have been given up. In the great majority of the homes the standard of nursing and equipment is satisfactory and in many it is excellent.

Total number of beds in these homes	...	...	...	...	...	432
Number of Homes which are equipped for surgical work	...	...	...	...	...	15
Number of Homes which take chronic or senile cases only	...	...	...	...	...	14
Number of Homes which take maternity cases only	...	...	...	...	...	11
Number of Homes which keep some beds for maternity cases	...	...	...	...	...	22
Approximate total maternity beds	...	...	...	...	...	103

RESIDENTIAL SCHOOLS.

In recent years the provisions of the Children and Young Persons Acts in relation to infant life protection have been extended to include supervision of children under nine years of age who are boarders in schools. In 1936 children in 11 residential schools in Birmingham have come into this category, and the schools have been inspected in regard to the accommodation, diet and general welfare of the children. Conditions have been found to be satisfactory, except in a few cases in regard to means of escape and protection in case of fire, and in these cases the advice of the Department has been acted upon.

BIRTH CONTROL CLINICS.

The data for 1936 represent the first full year's working of the birth control clinics opened in connection with the gynaecological departments of Dudley Road and Selly Oak Hospitals. These clinics were opened in July, 1935, and September, 1935 respectively. The particulars are as follows :—

	Dudley Road Hospital.	Selly Oak Hospital.
1. Number of women seeking advice :		
(a) Married women suffering from gynaecological conditions, making pregnancy detrimental to health ...	20	25
(b) Married women suffering from other forms of sickness detrimental to them as mothers, in that child-bearing is likely seriously to endanger life	29	37
(c) Other cases not coming within the categories authorized by the Ministry of Health	6	3
2. Number of women advised in Birth Control Methods ...	49	62
3. Number in which birth control advice was given, but pregnancy resulted	1	4
	(Advice not followed).	(Advice not followed in 2 cases).

TABLE I. VITAL STATISTICS DURING 1936 AND PREVIOUS YEARS.

YEAR	Population Estimated to middle of each year.	Birth-rate	Death-rate	Infant Mortality rate per 1,000 Births	DEATH-RATES PER 1,000 OF POPULATION FROM:—													DEATH-RATES PER 1,000 BIRTHS.							
					Enteric Fever	Smallpox	Measles	Scarlet Fever	Whooping Cough	Diphtheria	Influenza	Tuberculosis		Cancer	Diseases of Nervous System	Diseases of Circulatory System	Diseases of Respiratory System	Diseases of Digestive System.	Diseases of Genito- Urinary System	Suicides	Other Violence	Congenital Debility, Premature Birth, Malformations, etc. (under 1)	Diarrhoea and Enteritis (under 2)	Puerperal Fever	Other Accidents of Child Birth.
												Respiratory	Other Forms												
1901	760,989	31.4	17.5	176	.18	—	.49	.23	.39	.16	.16	1.47	.52	.73	?	?	3.50	?	?	.11	.42	?	?	1.47	2.52
1902	768,757	31.2	16.3	144	.17	.01	.31	.43	.47	.24	.12	1.38	.37	.68	?	?	3.24	?	?	.08	.43	?	?	1.24	2.19
1903	776,604	30.9	15.8	147	.10	.02	.32	.25	.16	.23	.10	1.28	.48	.76	?	?	2.93	?	?	.11	.45	?	?	1.17	2.63
1904	784,532	31.0	17.7	179	.08	—	.31	.11	.75	.21	.13	1.30	.45	.74	?	?	3.36	?	?	.09	.49	?	?	1.40	1.98
1905	792,540	29.0	15.1	141	.06	.00	.38	.08	.26	.17	.14	1.26	.41	.81	?	?	2.92	?	?	.10	.44	?	?	1.31	2.22
Average	800,631	30.7	16.5	157	.12	.01	.36	.22	.41	.20	.13	1.34	.45	.74	?	?	3.19	?	?	.10	.45	?	?	1.32	2.31
1906	808,803	29.4	15.9	157	.07	—	.34	.09	.44	.17	.15	1.14	.37	.83	?	?	2.80	?	?	.10	.44	?	?	1.11	2.98
1907	817,060	28.8	15.3	133	.09	—	.51	.15	.30	.20	.16	1.11	.43	.80	?	?	3.07	?	?	.09	.47	?	?	1.51	1.85
1908	825,400	29.1	15.3	130	.07	—	.08	.15	.49	.20	.31	1.24	.35	.85	?	?	2.82	?	?	.10	.44	?	?	0.50	2.29
1909	833,826	27.4	15.1	121	.04	—	.82	.18	.23	.20	.18	1.22	.30	.82	?	?	2.95	?	?	.10	.41	?	?	1.02	1.55
1910	842,337	26.8	13.2	115	.04	—	.05	.14	.34	.13	.11	1.08	.32	.89	?	?	2.48	?	?	.11	.45	?	?	1.48	2.11
Average	850,947	28.3	15.0	131	.06	—	.36	.14	.36	.18	.18	1.16	.35	.84	?	?	2.82	?	?	.10	.44	?	?	1.12	2.16
1911	859,644	26.1	15.0	150	.04	.00	.47	.10	.17	.13	.09	1.14	.32	.89	?	?	2.51	?	?	.12	.41	?	?	1.64	2.18
1912	869,644	26.1	14.1	111	.04	—	.67	.18	.39	.12	.12	1.28	.24	.93	1.36	1.33	2.68	.95	.50	.07	.45	48.4	10.8	1.22	2.03
1913	882,534	27.3	14.9	129	.02	—	.46	.20	.19	.19	.13	1.19	.34	1.02	1.37	1.53	2.48	1.68	.56	.11	.45	48.2	35.5	1.85	2.01
1914	891,234	26.4	14.8	122	.02	—	.35	.17	.35	.30	.16	1.20	.27	.88	1.35	1.74	2.69	1.49	.51	.09	.43	47.2	27.6	1.42	1.77
1915	895,678	23.8	14.4	118	.01	—	.47	.07	.14	.15	.16	1.28	.27	.90	1.36	1.82	2.82	1.31	.48	.05	.45	42.8	27.3	1.65	1.79
Average	900,000	25.9	14.6	126	.03	.00	.48	.14	.25	.18	.13	1.22	.29	.94	1.36	1.60	2.64	1.36	.51	.09	.44	46.6	25.3	1.56	1.96
1916	900,000	23.1	13.5	104	.01	—	.11	.03	.42	.13	.16	1.24	.24	1.00	1.29	1.88	2.60	1.07	.45	.05	.40	39.5	18.4	1.50	1.94
1917	900,000	19.7	12.6	101	.01	—	.37	.01	.14	.13	.11	1.30	.26	1.02	1.23	1.87	2.10	.88	.44	.06	.38	43.8	15.0	1.47	1.13
1918	910,000	19.4	15.2	99	.01	—	.08	.01	.32	.18	2.50	1.35	.25	1.02	1.18	1.76	2.85	.96	.40	.07	.35	38.7	18.5	1.72	1.31
1919	910,000	20.9	13.0	84	.01	—	.20	.05	.06	.14	1.15	1.10	.18	1.01	1.07	1.73	2.67	.66	.35	.11	.34	40.0	9.9	1.19	1.45
1920	910,000	27.6	12.6	83	—	—	.16	.12	.20	.22	.46	.93	.17	1.12	1.06	1.72	2.46	.82	.32	.11	.34	35.2	9.5	2.03	1.56
Average	919,683	22.1	13.4	94	.01	—	.18	.04	.23	.16	.88	1.18	.22	1.03	1.17	1.79	2.54	.88	.39	.08	.36	30.4	14.3	1.58	1.48
1921	927,844	24.1	11.3	83	.01	—	.17	.04	.10	.13	.15	.97	.16	1.12	0.98	1.64	2.02	.93	.38	.10	.26	36.6	16.6	1.17	1.67
1922	936,079	21.5	12.1	86	.00	—	.09	.04	.38	.10	.48	.97	.16	1.18	1.04	1.85	2.38	.66	.37	.12	.26	37.4	8.5	1.26	1.76
1923	944,386	20.4	11.0	72	.00	—	.20	.04	.05	.15	.28	.92	.16	1.17	1.00	1.71	1.98	.70	.39	.14	.35	31.3	10.9	1.78	1.73
1924	952,766	18.8	11.7	78	.01	—	.08	.02	.19	.10	.39	.97	.13	1.30	1.00	1.91	2.15	.70	.37	.10	.31	37.2	9.2	2.01	1.90
1925	961,222	18.7	11.3	73	.00	—	.11	.02	.23	.10	.39	.98	.16	1.27	0.98	2.12	1.97	.73	.37	.11	.33	34.0	11.3	1.96	2.19
Average	969,752	20.8	11.5	80	.00	—	.13	.03	.19	.12	.34	.96	.15	1.21	1.00	1.85	2.10	.74	.38	.11	.30	35.3	11.3	1.64	1.85
1926	976,500	17.6	10.9	65	.00	—	.08	.01	.13	.12	.27	.94	.12	1.26	1.07	2.12	1.88	.73	.40	.12	.32	32.2	11.2	2.29	1.84
1927	981,000	17.1	13.5	79	.00	—	.13	.01	.07	.06	.41	.89	.17	1.36	0.95	2.28	1.89	.70	.41	.15	.36	35.1	11.5	1.45	2.14
1928	982,000	17.7	10.8	60	.01	—	.06	.02	.11	.09	.13	.90	.13	1.43	0.88	2.57	1.32	.60	.44	.15	.40	30.6	7.6	1.55	1.84
1929	1,011,300	17.8	11.6	70	.00	.00	.10	.01	.12	.09	.41	.91	.13	1.35	0.96	2.43	1.78	.69	.45	.15	.38	33.0	10.7	1.74	2.05
Average	1,017,500	16.9	11.7	71	.00	—	.18	.01	.09	.06	.27	.92	.14	1.46	0.77*	2.90	1.61	.62	.45	.15	.38	34.6	8.7	1.64	2.17
1932	1,023,500	16.3	11.3	67	.00	—	.05	.01	.13	.03	.36	.83	.10	1.45	0.87*	2.73	1.47	.59	.45	.19	.35	33.6	7.7	1.68	2.05
1933	1,028,000	14.7	11.0	66	.00	—	.08	.02	.03	.03	.44	.85	.11	1.43	0.70*	2.94	1.32	.61	.40	.17	.39	33.7	7.8	1.66	2.06
1934	1,033,000	15.3	11.0	68	.01	—	.02	.01	.11	.08	.18	.71	.08	1.43	0.76*	3.04	1.26	.67	.44	.16	.38	35.0	8.7	1.85	1.98
1935	1,038,000	15.4	10.9	64	.00	—	.05	.01	.06	.08	.15	.71	.08	1.52	0.72*	3.14	1.09	.62	.46	.13	.40	36.3	7.7	1.45	2.07
Average	1,038,000	15.7	11.2	67	.00	—	.08	.01	.08	.06	.28	.80	.10	1.46	0.76*	2.95	1.35	.62	.44	.16	.38	34.6	8.1	1.66	2.07
1936	1,038,000	15.8	11.3	62	.00	—	.04	.01	.10	.06	.13	.71	.07	1.57	0.69*	3.43	1.22	.62	.45	.12	.38	32.8	5.4	1.53	2.14

* Exclusive of General Paralysis.

TABLE II.
CAUSES OF DEATH AT DIFFERENT AGE PERIODS IN 1936.

No.	Causes of Death.	Sex	AGES AT DEATH.									All Ages.
			0-	1-	2-	5-	15-	25-	45-	65-	75-	
1.	Typhoid and Paratyphoid Fevers ...	M.	—	—	—	—	—	—	—	—	—	—
		F.	—	—	—	—	1	—	1	—	—	2
1a.	Small Pox ...	M.	—	—	—	—	—	—	—	—	—	—
		F.	—	—	—	—	—	—	—	—	—	—
2.	Measles ...	M.	4	6	5	3	—	—	1	—	—	19
		F.	4	8	7	1	—	—	—	—	—	20
3.	Scarlet Fever ...	M.	—	—	—	2	2	—	—	—	—	4
		F.	—	1	1	2	—	1	1	—	—	6
4.	Whooping Cough ...	M.	30	10	10	1	—	—	—	—	—	51
		F.	36	10	9	—	1	—	—	—	—	56
5.	Diphtheria ...	M.	3	—	13	18	1	—	—	—	—	35
		F.	1	1	9	16	—	—	1	—	—	28
6.	Influenza ...	M.	3	3	—	1	1	13	33	15	8	77
		F.	—	—	—	2	2	6	16	11	22	59
6a.	Poliomyelitis ...	M.	—	—	1	—	—	—	—	—	—	1
		F.	—	—	—	1	—	—	—	—	—	1
6b.	Polioencephalitis ...	M.	—	—	—	—	—	1	—	—	—	1
		F.	—	—	—	—	—	—	—	—	—	—
7.	Encephalitis Lethargica	M.	—	—	—	—	1	3	5	2	—	11
		F.	—	—	—	—	2	4	3	1	—	10
8.	Cerebro-Spinal Fever	M.	2	1	1	2	2	1	—	—	—	9
		F.	6	3	1	1	1	2	—	—	—	14
9.	Tuberculosis of Respir. System ...	M.	2	1	3	1	49	159	196	21	5	437
		F.	4	2	2	3	88	118	73	7	—	297
10a.	Tubercular Meningitis	M.	2	3	1	4	4	—	—	—	—	14
		F.	—	2	2	5	1	1	—	—	—	11
10b.	Tuberculosis of the Abdomen ...	M.	1	—	1	2	—	—	1	—	—	5
		F.	—	—	—	—	—	5	—	—	—	5
10c.	Tuberculosis of Spinal Column ...	M.	—	—	—	1	—	1	—	—	—	2
		F.	—	—	—	2	—	1	2	1	—	6
10d.	Tuberculosis of Joints	M.	—	—	—	—	—	—	1	1	—	2
		F.	—	—	—	—	—	—	1	—	—	1
10e.	Disseminated Tuberculosis ...	M.	1	1	1	2	—	—	2	—	—	7
		F.	2	—	2	2	3	1	2	—	—	12
10f.	Tuberculosis of Glands and other parts ...	M.	—	—	—	—	1	1	—	1	—	3
		F.	—	—	—	—	—	1	1	—	1	3
11.	Syphilis ...	M.	1	—	—	—	3	9	26	5	2	46
		F.	1	—	—	—	—	3	11	2	2	19
12.	Gen. Paralysis of Insane	M.	—	—	—	—	—	8	16	6	1	31
	Tabes Dorsalis ...	F.	—	—	—	—	—	1	6	2	—	9
13a.	Cancer of Buccal Cavity and Pharynx ...	M.	1	—	—	—	—	2	28	28	11	70
		F.	—	—	—	—	1	1	10	2	1	15
13b.	Æsop., Stomach, Liver, Pancreas	M.	—	—	—	1	—	17	103	87	36	244
		F.	—	—	—	—	2	14	68	78	45	207
13c.	Peritoneum and Intestines ...	M.	—	—	—	—	—	10	70	77	43	200
		F.	—	1	—	—	—	10	70	65	44	190
13d.	Female Organs ...	M.	—	—	—	—	—	—	—	—	—	—
		F.	—	1	—	—	1	21	92	39	11	165
13e.	Breast ...	M.	—	—	—	—	—	—	2	1	—	3
		F.	—	—	—	—	—	22	85	36	23	166
13f.	Skin ...	M.	—	—	—	—	—	—	—	1	2	3
		F.	—	—	—	—	—	—	2	—	2	4
13g.	Other Organs ...	M.	—	—	1	—	9	17	125	80	36	268
		F.	—	—	2	2	4	13	41	25	10	97
14.	Diabetes ...	M.	—	—	—	—	2	1	16	36	8	63
		F.	—	—	—	1	—	1	40	43	23	108

TABLE II.—*continued.*

CAUSES OF DEATH AT DIFFERENT AGE PERIODS IN 1936.

No.	Causes of Death.	Sex.	AGES AT DEATH.									All Ages
			0—	1—	2—	5—	15—	25—	45—	65—	75—	
14a.	Rheumatic Fever ...	M.	—	—	—	7	10	6	4	3	—	30
		F.	—	—	—	17	9	6	4	1	—	37
14b.	Chronic Rheumatism Osteo-Arthritis ...	M.	—	—	—	—	—	3	9	14	5	31
		F.	—	—	—	—	—	2	13	15	33	63
15.	Cerebral Haemorrhage, etc.	M.	2	—	—	—	—	3	45	58	37	145
		F.	—	—	—	—	1	5	59	108	125	298
15a.	Other Nervous Diseases and Sense Organs ...	M.	34	9	3	14	13	22	31	19	6	151
		F.	27	6	6	7	12	14	27	18	6	123
16.	Heart Disease ...	M.	3	—	4	3	12	61	420	412	388	1303
		F.	—	—	1	5	23	63	308	462	644	1506
17.	Aneurysm	M.	—	—	—	2	—	4	15	2	2	25
		F.	—	—	—	1	—	1	4	6	3	15
18.	Arterio-Sclerosis and other Circ. Diseases	M.	—	1	—	—	—	9	82	170	143	405
		F.	—	—	—	1	—	7	66	89	141	304
19.	Bronchitis	M.	3	1	—	—	—	4	48	42	61	159
		F.	11	2	—	—	—	2	22	40	68	145
20.	Pneumonia (all forms)	M.	90	21	10	9	14	72	183	78	51	528
		F.	59	13	14	8	10	28	60	35	47	274
21.	Other Respir. Diseases	M.	5	1	1	4	3	8	44	11	13	90
		F.	—	—	2	2	1	12	21	15	18	71
22.	Peptic Ulcer	M.	—	—	—	—	1	13	77	14	6	111
		F.	—	—	—	—	1	3	19	9	6	38
23.	Diarrhoea and Enteritis	M.	55	5	—	1	—	—	3	3	2	69
		F.	27	1	1	—	3	8	4	3	6	53
24.	Appendicitis	M.	—	1	3	6	7	10	12	1	4	44
		F.	—	—	4	8	—	8	11	2	3	36
25.	Cirrhosis of Liver ...	M.	—	—	—	—	—	2	18	6	—	26
		F.	—	—	—	—	1	—	6	6	1	14
26.	Other Dis. of Liver, etc.	M.	1	—	—	—	—	3	8	7	—	19
		F.	—	—	—	—	—	3	12	12	11	38
27.	Other Digestive Diseases	M.	6	1	1	5	2	10	35	22	12	94
		F.	8	4	2	6	2	5	33	20	19	99
28.	Acute and Chronic Nephritis	M.	1	—	1	5	6	26	52	39	26	156
		F.	1	—	—	3	5	13	39	33	34	128
28a.	Other Genito-Urinary Diseases	M.	2	—	—	—	1	3	40	47	52	145
		F.	4	1	—	1	2	10	11	6	4	39
29.	Puerperal Sepsis ...	M.	—	—	—	—	—	—	—	—	—	—
		F.	—	—	—	—	8	17	—	—	—	25
30.	Other Puerperal Causes	M.	—	—	—	—	—	—	—	—	—	—
		F.	—	—	—	—	5	30	—	—	—	35
31.	Congenital Debility, Premature Birth, Malformations, etc.	M.	308	1	1	1	—	—	1	—	—	312
		F.	229	—	1	—	1	1	—	—	1	233
32.	Senility	M.	—	—	—	—	—	—	1	13	78	92
		F.	—	—	—	—	—	—	—	10	147	157
33.	Suicide	M.	—	—	—	—	3	21	36	16	3	79
		F.	—	—	—	—	3	19	20	6	1	49
34.	Other Violence ...	M.	10	3	11	27	31	32	41	47	40	242
		F.	4	—	5	10	12	19	23	30	47	150
35.	Other Causes	M.	14	3	2	8	16	36	49	29	12	169
		F.	13	3	—	8	13	42	72	41	26	218
	All Causes	M.	584	72	74	130	194	591	1879	1414	1093	6031
		F.	437	59	71	115	219	544	1360	1279	1575	5659

TABLE III. Births and Deaths Registered in, or belonging to, each Ward during the Year ending December 31st, 1936

CAUSES OF DEATH.	Sex.	Acoc's Green.	All Saints'	Aston.	Balsall Heath	Bromford	Duddeston and Green.	Edgbaston	Erdington	Gravelly Hill	Hall Green	Handsworth	Harborne	King's Norton	Ladywood	Lozells	Market Hall	Moseley and King's Heath	Northfield	Perry Barr	Rotton Park	St. Bartholomew's	St. Martin's & Deritend	St. Mary's	St. Paul's	Satley	Sandwell	Selly Oak	Small Heath	Soho	Sparkbrook	Sparkhill	Stechford	Washwood Heath	Yardley	Not Located	Total of City		
All Causes	M. F.	165 157	211 195	212 184	257 219	111 126	276 191	150 180	141 134	124 154	137 123	167 173	124 132	151 157	181 173	185 206	139 118	217 254	152 151	145 117	210 174	218 179	282 210	249 193	211 208	156 158	118 123	140 151	168 159	148 164	217 179	199 217	118 105	128 141	143 112	81 42	6031 5659		
Typhoid & Paratyphoid Fever	M. F.	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	
Small Pox	M. F.	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	
Measles ...	M. F.	2 1	— 1	— 1	— 1	1 2	2 1	— —	1 —	— —	1 —	1 —	3 —	2 —	1 —	2 —	2 —	2 —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	
Scarlet Fever ...	M. F.	2 —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	
Whooping Cough	M. F.	— —	2 4	1 —	2 1	— —	2 3	— 1	— 2	— —	— —	— —	2 —	1 —	1 5	1 3	1 1	1 1	1 1	5 4	2 3	1 1	3 4	1 5	4 6	1 2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
Diphtheria ...	M. F.	— —	2 2	1 1	1 2	— —	2 3	1 2	1 1	1 2	1 4	1 5	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	
Influenza ...	M. F.	1 2	2 3	1 2	2 5	1 3	— —	2 4	2 1	2 2	2 1	2 2	— —	2 2	5 3	2 1	1 1	2 2	2 2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	
Poliomyelitis ...	M. F.	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	
Polio	M. F.	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	
Encephalitis	M. F.	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	
Encephalitis	M. F.	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	
Lethargica ...	M. F.	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	
Cerebro-Spinal Fever	M. F.	1 1	1 1	— —	1 1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
Tuberculosis of Respiratory System	M. F.	11 8	16 9	20 13	26 11	7 9	17 11	5 5	13 5	9 8	12 14	15 7	6 1	11 7	12 9	11 12	10 7	13 11	15 5	13 10	13 9	17 14	22 14	27 17	16 9	11 5	6 6	11 6	12 6	8 7	12 13	6 7	7 5	14 9	7 1	437 297			
Tubercular Meningitis	M. F.	1 1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	
Tuberculosis of the Abdomen	M. F.	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	
Tuberculosis of Spinal Column	M. F.	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	
Tuberculosis of Joints	M. F.	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	
Disseminated Tuberculosis...	M. F.	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	
Tuberculosis of Glands and other parts ...	M. F.	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	

TABLE III. (Continued).

CAUSES OF DEATH.	Sex.	Accoek's Green.	All Saints'.	Aston	Balsall Heath	Bromford	Duddeston and Nechells	Edgbaston	Erdington	Gravelly Hill	Hall Green	Handsworth	Harborne	King's Norton	Ladywood	Lozells	Market Hall	Moseley and King's Heath	Northfield	Perry Barr	Rotton Park	St. Bartholomew's	St. Martin's and Deritend	St. Mary's	St. Paul's	Saltley	Sandwell	Selly Oak	Small Heath	Soho	Sparkbrook	Sparkhill	Stechford	Washwood Heath	Yardley	Not Located	Total of City	
Syphilis ...	M.	5	3	—	1	1	4	2	1	1	—	—	1	1	—	1	3	1	1	1	—	1	2	6	2	2	2	—	—	—	3	—	—	—	1	—	—	46
Gen.Par.ofInsane, Tabes Dorsalis	F.	—	—	—	—	—	2	1	—	—	—	—	—	—	—	—	2	—	—	—	2	—	—	—	3	2	2	—	—	—	2	—	—	—	—	—	1	19
CANCER OF Buccal Cavity and Pharynx	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	1	2	—	—	—	—	—	—	—	—	—	—	31	
Qætop.,Stomach, Liver, Pancreas	F.	1	2	3	4	—	2	3	1	—	1	—	—	3	1	3	3	3	3	1	4	—	7	1	1	1	1	—	—	—	—	—	—	—	—	—	9	
Peritoneum	M.	5	10	10	13	4	7	4	4	4	6	8	2	6	5	12	7	7	5	1	5	10	8	12	6	6	—	—	—	—	—	—	—	—	—	70		
Pelvic Intest.	F.	10	8	8	3	7	8	3	4	4	4	1	6	2	5	5	1	12	4	4	11	5	7	7	17	8	—	—	—	—	—	—	—	—	—	15		
Female Organs	M.	3	8	8	6	2	5	4	6	2	3	6	5	9	8	4	5	8	6	2	4	6	8	8	3	3	2	—	—	—	—	—	—	—	—	200		
Breast ...	F.	2	—	7	—	9	8	—	—	4	4	5	5	11	3	4	—	5	12	6	2	4	6	6	3	6	—	—	—	—	—	—	—	—	—	190		
Skin ...	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	165			
Other Organs ...	F.	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3			
Diabetes	M.	7	9	4	15	9	12	8	5	6	4	8	3	8	7	10	7	8	2	2	10	12	11	13	12	8	—	—	—	—	—	—	—	—	—	268		
Rheumatic Fever	F.	1	2	2	3	3	2	3	2	3	3	1	1	1	6	6	2	4	4	3	1	3	4	2	3	3	—	—	—	—	—	—	—	—	—	97		
Chronic Rheum.	M.	—	2	2	2	2	2	4	2	2	2	6	1	1	2	3	2	4	2	1	2	2	2	2	2	—	—	—	—	—	—	—	—	—	63			
Osteo-Arthritis	F.	—	5	3	1	—	1	3	1	1	2	2	1	1	1	1	—	1	3	1	1	—	—	—	1	1	—	—	—	—	—	—	—	—	—	31		
Cerebral	M.	6	11	11	16	3	10	15	7	9	6	7	4	3	5	4	2	5	5	2	6	3	4	4	5	5	—	—	—	—	—	—	—	—	—	63		
Haemorrhage,etc	F.	6	3	3	5	4	9	3	4	3	4	3	2	2	3	5	4	14	7	4	19	8	10	10	4	6	—	—	—	—	—	—	—	—	—	145		
Other Nerv. Dis.	M.	4	7	3	16	4	10	15	7	9	6	7	8	11	9	12	6	14	7	4	19	8	10	4	4	5	—	—	—	—	—	—	—	—	—	298		
Heart Disease ...	F.	33	42	44	56	23	67	43	33	37	28	43	25	29	39	5	23	64	5	5	18	45	53	44	6	5	—	—	—	—	—	—	—	—	—	151		
Aneurysm	M.	39	60	52	57	34	47	42	31	42	25	56	35	35	57	58	36	63	27	19	50	50	65	45	53	36	—	—	—	—	—	—	—	—	123			
Arterio-Sclero. & other Circ. Dis.	F.	1	1	1	—	2	—	—	1	1	—	3	2	1	—	2	1	1	1	—	1	2	—	—	—	1	1	—	—	—	—	—	—	—	—	1506		
Bronchitis ...	M.	8	19	15	24	5	14	8	8	13	8	12	7	11	16	23	12	9	11	5	9	19	25	16	13	11	—	—	—	—	—	—	—	—	—	25		
Pneumonia (all forms) ...	F.	7	11	12	19	5	2	10	12	9	1	6	11	20	2	13	4	22	3	3	13	11	13	7	7	7	—	—	—	—	—	—	—	—	—	15		
Other Respir. Diseases ...	M.	2	8	4	5	1	12	4	1	5	—	3	8	7	5	8	5	5	4	1	6	9	13	10	6	4	—	—	—	—	—	—	—	—	—	405		
	F.	7	2	3	2	1	6	5	2	3	3	4	5	5	5	5	3	3	3	1	3	7	5	6	5	3	3	—	—	—	—	—	—	—	—	304		
	M.	16	20	22	21	9	24	9	13	10	12	16	10	5	16	11	13	19	6	11	15	23	32	20	16	16	—	—	—	—	—	—	—	—	—	159		
	F.	7	12	9	14	3	12	16	5	8	7	9	3	4	10	11	4	11	4	9	6	6	16	12	7	7	—	—	—	—	—	—	—	—	—	145		
	M.	2	4	8	8	—	4	2	2	1	—	2	3	1	4	—	5	3	3	1	1	2	5	6	5	3	—	—	—	—	—	—	—	—	—	145		
	F.	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	528			
	M.	7	12	9	14	3	12	16	5	8	7	9	3	4	10	11	4	11	4	9	6	6	16	12	7	7	—	—	—	—	—	—	—	—	—	274		
	F.	2	4	8	8	—	4	2	2	1	—	2	3	1	4	—	5	3	3	1	1	2	5	6	5	3	—	—	—	—	—	—	—	—	—	90		
	F.	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	71			

TABLE III. Continued.

CAUSES OF DEATH.	Sex.	Accoek's Green.	All Saints'	Aston.	Balsall Heath.	Bromford	Duddeston and Nechells	Edgbaston	Erdington	Gravelly Hill	Hall Green	Handsworth	Harborne	King's Norton	Ladywood	Lozells	Market Hall	Moseley and King's Heath	Northfield	Perry Barr	Rotton Park	St. Bartholomew's.	St. Martin's and Deritend	St. Mary's	St. Paul's	Saltley	Sandwell	Selly Oak	Small Heath	Soho	Sparkbrook	Sparkhill	Stechford	Washwood Heath	Yardley	Not Located	Total for City	
Peptic Ulcer ...	M.	5	7	3	4	2	7	1	—	3	2	—	1	2	3	4	2	2	4	3	9	5	6	3	5	1	2	2	2	4	3	7	1	2	3	—	111	
	F.	1	1	2	1	4	4	2	—	—	1	2	2	—	1	1	1	1	3	1	1	1	—	1	1	1	—	1	1	4	4	4	2	2	—	38		
Diarrhoea and Enteritis ...	M.	2	3	2	2	1	4	2	2	—	2	1	1	1	2	1	2	2	—	5	4	2	5	8	2	1	2	2	2	5	—	2	2	1	2	—	69	
	F.	3	1	—	1	2	1	1	2	3	1	3	1	1	—	1	1	—	3	2	2	—	2	3	1	—	2	2	—	1	5	4	2	1	1	44		
Appendicitis ...	M.	3	1	1	1	2	—	1	1	1	4	2	1	—	1	1	1	6	4	1	1	3	1	—	2	—	2	2	—	1	1	—	1	1	1	—	36	
	F.	1	—	—	2	1	—	2	1	—	1	—	1	—	1	—	—	1	2	—	1	1	—	—	—	—	—	—	—	2	1	—	—	—	—	26		
Cirrhosis of Liver	M.	2	—	—	1	—	1	—	1	—	—	—	2	—	—	—	—	2	1	—	—	1	—	—	—	—	—	—	—	1	1	—	—	—	—	14		
	F.	—	—	—	2	1	—	—	1	—	2	—	1	—	—	—	—	1	2	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	19		
Other Dis. of Liver, etc. ...	M.	1	1	2	1	—	1	1	—	—	—	—	—	1	1	2	—	1	1	—	—	1	—	—	—	—	—	—	1	1	—	—	—	—	—	38		
	F.	3	—	2	1	—	—	2	2	—	5	—	2	1	—	4	2	2	3	3	3	1	1	1	2	2	2	2	4	2	2	3	1	—	—	94		
Other Digestive Diseases ...	M.	3	—	4	4	1	3	6	1	1	1	4	—	1	1	5	2	1	7	2	3	6	6	2	2	2	2	2	2	2	2	4	2	—	1	—	99	
	F.	4	6	2	5	4	3	5	1	1	1	2	4	4	1	4	2	2	4	4	3	—	2	3	4	5	2	2	2	2	2	4	2	2	—	156		
Acute and Chron. Nephritis ...	M.	3	6	6	7	3	6	4	1	2	7	6	4	2	3	5	5	9	3	4	11	4	5	9	3	—	3	2	4	7	6	7	2	3	—	128		
	F.	4	3	6	2	2	6	6	3	6	4	4	—	4	6	3	2	2	2	4	5	1	5	6	3	7	3	1	1	5	5	8	1	2	2	145		
Other Genito-Urinary Dis....	M.	4	3	3	6	1	2	3	5	2	4	3	5	5	6	3	4	7	6	1	3	5	5	6	2	7	3	3	7	6	6	4	4	3	4	—	39	
	F.	4	1	—	3	—	1	—	—	—	2	1	4	—	—	2	1	1	3	—	—	2	1	1	—	—	—	—	2	—	1	2	—	—	—	—	—	
Puerperal Sepsis	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25	
	F.	1	2	1	—	—	1	—	1	1	—	1	—	—	1	—	—	—	2	2	—	1	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
Other Puerperal Causes ...	M.	—	—	—	—	—	—	—	—	2	—	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35
	F.	3	—	2	—	1	3	—	2	—	—	—	2	—	1	—	—	—	3	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Con. Debility, Prem. Birth, Malformations, etc.	M.	8	10	15	6	5	17	3	7	1	13	6	9	12	7	6	8	10	9	21	7	16	16	12	10	12	2	6	6	8	4	12	7	8	2	312		
	F.	4	5	9	6	5	11	4	2	10	3	7	6	2	2	7	4	4	12	13	5	9	8	9	12	6	4	4	7	5	4	9	4	4	6	2	233	
Senility ...	M.	3	—	1	4	3	8	—	5	1	3	4	1	2	3	—	2	4	1	2	5	9	—	—	2	3	1	1	4	5	5	5	5	4	1	1	2	92
	F.	4	2	1	6	1	8	6	4	3	2	9	3	7	5	7	1	7	7	1	3	3	6	4	5	5	5	5	4	3	3	9	2	2	4	10	157	
Suicide ...	M.	3	4	3	2	2	5	—	3	—	—	3	5	3	—	2	2	—	5	3	2	2	2	—	1	1	1	2	2	3	3	1	2	3	1	1	1	79
	F.	2	—	1	2	2	1	1	3	2	3	1	1	2	1	1	1	2	2	—	—	9	2	1	2	1	2	—	—	—	1	3	4	1	1	—	49	
Other Violence	M.	8	11	9	7	5	13	6	5	9	7	2	5	9	7	5	4	8	9	14	8	9	13	5	11	4	2	2	5	7	4	5	5	7	5	2	242	
	F.	6	8	7	5	3	7	8	2	2	4	4	4	2	3	9	4	3	5	2	4	5	3	8	7	1	4	4	3	4	—	4	4	—	1	150		
Other Causes	M.	4	9	5	5	6	11	8	5	2	4	4	4	3	6	9	3	3	5	3	4	5	7	6	1	5	5	4	8	6	6	5	8	3	8	1	169	
	F.	10	6	4	6	6	5	5	5	8	3	7	5	5	6	8	8	4	11	6	4	7	2	7	9	7	10	5	8	5	7	3	11	6	9	1	218	
Deaths Under 1 Year Births ...		26	35	46	24	15	58	11	18	15	31	17	21	16	40	24	26	29	37	56	29	44	65	46	51	36	10	17	17	25	34	23	34	18	25	2	1021	
		516	444	591	435	459	707	236	339	438	586	368	323	431	461	500	288	540	702	1006	477	603	654	516	589	448	247	412	355	268	449	437	383	402	280	16386		

TABLE IV. DEATH-RATES FROM ALL CAUSES IN WARDS.

New Wards	St. Paul's	St. Mary's	Duddesdon and Nechells	St. Bartholomew's	St. Martin's	Market Hall	Ladywood	Central Wards	Lozells	Aston	Washwood Heath	Saltley	Small Heath	Sparkbrook	Balsall Heath	Edgbaston	Rotton Park	All Saints'	Middle Ring	Soho	Sandwell	Handsworth	Perry Barr	Erdington North	Erdington South	Yardley	Acoc's Green	Sparkhill	Moseley and King's Heath	Selly Oak	King's Norton	Northfield	Harborne	Outer Ring			
	12.6	13.3	11.4	12.8	13.3	13.2	13.5	12.9	12.5	11.8	9.4	9.7	10.8	11.2	13.4	12.8	12.1	12.2	11.1	6.1	13.1	10.3	5.2	8.7	8.1	9.0	8.5	8.7	9.0	6.9	11.5	11.0	10.3	7.1	8.5	9.5	
1936	13.8	15.7	13.2	12.4	13.8	13.0	12.5	13.5	13.7	12.0	8.7	10.8	11.2	13.2	14.6	12.1	12.3	13.5	12.2	12.9	11.5	12.7	6.	9.7	8.9	8.5	8.9	9.3	9.1	6.7	12.7	12.0	9.9	9.7	7.8	9.7	9.8

Old Wards	St. Paul's	St. Mary's	Duddesdon and Nechells	St. Bartholomew's	St. Martin's	Market Hall	Ladywood	Central Wards	Lozells	Aston	Washwood Heath	Saltley	Small Heath	Sparkbrook	Balsall Heath	Edgbaston	Rotton Park	All Saints'	Middle Ring	Soho	Sandwell	Handsworth	Perry Barr	Erdington North	Erdington South	Yardley	Acoc's Green	Sparkhill	Moseley and King's Heath	Selly Oak	King's Norton	Northfield	Harborne	Outer Ring				
	18.7	22.4	19.7	17.0	21.2	16.5	14.9	18.6	12.4	13.7	11.8	12.2	11.5	12.4	12.5	12.1	13.7	13.3	12.6	12.2	9.9	9.8	?	12.7	7.9	10.8	11.0	9.7	9.8	10.5	9.1	10.6	9.9	10.3	9.1	10.6	9.9	10.3
1916	18.2	19.7	21.6	18.1	21.5	0.14	4.16	9.12	9.12	6.10	2.11	0.11	3.11	8.12	2.11	5.12	7.12	7.11	9.10	6.9	5.10	3.?	9.1	8.8	9.3	10.9	9.1	10.6	8.6	8.0	7.5	10.1	9.4	7.5	10.1	9.4		
1917	20.0	22.7	19.7	20.8	20.3	20.9	19.4	20.5	15.5	16.3	12.0	13.4	14.8	14.5	15.6	13.7	15.8	15.7	14.7	13.3	11.1	11.7	?	9.8	11.7	10.8	12.3	11.9	11.2	11.8	9.3	11.5	12.5	11.5	9.3	11.5	12.5	11.5
1918	16.8	17.9	15.8	16.5	16.4	0.16	1.16	5.13	1.13	4.11	8.10	7.11	1.13	1.13	3.12	8.13	2.12	5.12	5.11	1.10	6.11	4.?	11.1	10.7	10.3	9.5	10.0	11.6	1.1	9.3	8.0	11.3	10.5	9.3	8.0	11.3	10.5	
1919	16.9	20.4	16.3	16.6	17.6	12.8	17.5	16.9	11.8	11.9	11.4	11.1	0.12	0.12	8.11	1.13	7.12	7.12	0.11	6.9	4.9	5.?	9.5	9.3	10.4	10.4	10.0	10.0	10.0	9.0	8.2	10.2	9.8	9.0	8.2	10.2	9.8	
1920	18.1	20.6	17.7	17.5	19.0	15.8	16.5	17.9	13.1	13.6	11.4	11.7	11.9	12.8	13.3	12.2	13.8	13.4	12.7	11.8	10.1	10.5	10.4	10.4	9.7	10.3	10.8	10.1	10.6	10.4	8.9	9.2	10.8	10.3	8.9	9.2	10.8	10.3
Average	14.7	17.4	13.7	14.2	13.6	14.6	12.6	14.4	11.7	12.1	10.9	9.2	10.5	10.2	11.4	10.7	11.1	11.3	10.9	10.1	11.3	10.1	?	9.3	10.2	8.0	8.3	9.1	10.5	7.6	7.8	8.7	8.2	9.2	7.8	8.7	8.2	9.2
1921	15.1	15.5	13.2	15.9	16.7	15.1	14.8	15.2	12.3	12.6	10.4	10.1	10.9	12.2	8.11	8.11	8.11	8.11	7.12	2.9	1.9	6.?	?	10.7	10.1	9.2	9.6	10.6	12.3	10.4	7.8	9.5	10.1	10.1	7.8	9.5	10.1	10.1
1922	13.7	17.1	13.7	13.5	14.0	12.1	12.5	13.8	11.8	11.6	10.1	8.4	9.7	10.4	10.9	10.6	10.7	11.4	10.6	10.3	8.9	9.8	?	8.9	8.1	8.3	8.7	9.4	11.0	8.8	8.1	7.9	9.8	9.1	8.1	7.9	9.8	9.1
1923	14.1	15.5	13.4	14.9	15.4	14.9	13.1	14.5	12.3	12.2	8.9	10.1	10.8	10.8	10.3	10.8	11.4	11.8	11.2	11.8	8.9	9.8	?	10.6	8.9	9.5	10.0	10.0	10.1	9.0	10.0	8.9	10.4	9.8	8.3	9.3	9.5	9.3
1924	14.9	17.7	13.2	14.5	15.4	13.4	12.6	14.5	12.8	14.1	9.7	9.2	9.7	11.8	11.9	11.3	12.5	12.8	11.6	12.0	8.1	9.3	?	9.3	8.1	9.6	8.8	9.8	10.4	8.6	8.3	9.3	9.5	9.6	8.3	9.3	9.5	9.3
1925	14.5	16.6	13.4	14.6	15.0	14.0	13.1	14.5	12.2	12.5	10.0	9.3	10.0	11.2	11.0	11.1	11.1	11.1	10.9	11.3	9.3	9.7	?	9.8	9.1	8.9	9.1	9.8	10.9	8.9	8.4	8.9	9.6	9.5	8.4	8.9	9.6	9.5
Average	14.6	16.9	12.8	14.0	14.6	13.2	13.4	14.1	12.7	12.3	9.3	7.3	9.0	10.9	12.0	11.9	13.2	13.1	10.9	10.9	9.8	9.6	?	8.1	9.3	7.3	8.6	9.2	9.8	8.2	8.6	10.0	10.3	9.2	8.6	10.0	10.3	9.2
1926	16.2	16.6	13.1	13.4	14.8	12.5	13.2	14.3	11.5	12.1	9.7	8.8	8.6	11.2	11.2	11.2	12.4	12.5	11.1	11.7	9.7	10.6	?	9.4	7.9	8.8	8.8	10.0	10.6	9.7	8.9	9.2	10.7	9.7	8.9	9.2	10.7	9.7
1927	14.7	17.5	12.3	12.9	14.1	13.3	12.9	14.0	12.5	11.6	9.7	9.3	9.9	11.7	12.2	9.7	10.7	10.5	10.8	10.7	9.3	9.8	3.2	8.2	9.2	7.8	8.3	7.9	9.5	9.1	9.7	10.2	8.7	8.7	8.7	8.7	8.7	8.7
1928	17.3	18.1	16.8	16.0	18.7	16.7	15.3	17.0	15.7	15.4	12.1	10.3	10.5	14.0	15.1	13.9	15.1	14.4	13.6	14.8	11.8	13.0	6.8	10.0	10.2	9.7	9.5	10.6	11.8	10.8	9.8	10.3	11.8	10.8	9.8	10.3	11.8	10.8
1929	12.9	14.9	12.2	12.5	14.4	14.0	12.5	13.3	11.8	12.2	9.0	7.8	9.0	11.3	12.6	12.7	11.1	10.9	10.8	11.0	9.10	4.5	5.0	7.6	9.1	8.8	8.0	8.9	10.6	8.3	8.2	7.8	10.2	8.9	7.8	10.2	8.9	
1930	15.1	16.8	13.4	13.8	15.3	13.9	13.2	14.5	12.8	12.7	10.0	8.7	9.4	11.8	13.0	12.1	12.1	12.1	11.1	11.1	10.3	10.7	?	8.7	9.1	8.5	8.6	9.3	10.5	9.2	9.0	9.5	10.3	9.5	9.5	10.3	9.5	
Average	14.8	16.2	13.9	13.5	14.9	15.1	13.1	14.5	12.9	13.9	11.5	9.2	11.4	12.9	12.4	12.1	13.9	12.7	12.3	14.0	9.2	11.1	7.2	8.6	9.7	7.9	9.1	9.4	9.2	11.1	10.0	7.2	9.2	9.2	7.2	9.2	9.5	
1931	13.2	15.8	14.2	13.7	13.7	12.6	12.1	13.6	13.1	13.4	10.5	8.7	11.4	12.1	12.1	11.1	11.1	11.1	11.1	13.0	11.1	11.1	6.7	8.7	9.2	9.0	8.5	10.1	10.7	10.8	10.1	7.2	10.4	9.8	7.2	10.4	9.8	
1932	12.7	13.7	12.7	12.6	14.2	14.0	13.1	13.3	13.2	12.3	9.6	9.1	12.0	12.8	11.7	11.0	10.0	12.1	11.4	13.0	10.8	12.9	5.9	8.4	12.1	9.3	8.8	9.1	10.3	9.2	10.0	8.3	8.4	9.7	8.3	8.4	9.7	
1933	12.1	14.0	12.5	12.2	14.2	13.1	12.0	12.9	13.4	12.3	9.5	8.9	10.8	13.9	14.2	11.6	12.7	12.5	12.0	11.5	11.6	12.4	5.9	8.4	8.0	8.5	8.7	9.4	10.3	10.7	10.8	8.4	9.7	9.6	8.4	9.7	9.6	
1934	13.2	14.9	13.3	13.0	14.2	13.7	12.6	13.6	13.1	13.0	10.3	9.0	11.4	12.9	12.9	11.6	12.0	12.2	11.1	12.9	10.7	11.9	6.4	8.5	9.7	8.7	8.8	9.5	10.1	10.4	10.2	7.8	9.4	9.6	7.8	9.4	9.6	
Average	13.2	14.9	13.3	13.0	14.2	13.7	12.6	13.6	13.1	13.0	10.3	9.0	11.4	12.9	12.9	11.6	12.0	12.2	11.1	12.9	10.7	11.9	6.4	8.5	9.7	8.7	8.8	9.5	10.1	10.4	10.2	7.8	9.4	9.6	7.8	9.4	9.6	

NOTE.—Figures for individual Wards for 1935 and 1936 cannot be compared with those for preceding years, owing to many alterations in the boundaries of the Wards in November, 1934. The averages for the Groups of Wards (Central, Middle Ring, Outer Ring) may, however, be considered as roughly comparable.

New Wards	St. Paul's	St. Mary's	Duddeston and Nechells	St. Bartholomew's	St. Martin's	Market Hall	Ladywood	Central Wards	Lozells	Aston	Washwood Heath	Saltley	Small Heath	Sparkbrook	Balsall Heath	Edgbaston	Rotton Park	All Saints'	Middle Ring	Soho	Sandwell	Handsworth	Perry Barr	Erdington	Gravelly Hill	Bromford	Stechford	Yardley	Acoc's Green	Hall Green	Sparkhill	Moseley and King's Heath	Selly Oak	King's Norton	Northfield	Harborne	Outer Ring	
	1935	12.6	13.3	11.4	12.8	13.3	13.2	13.5	12.9	12.5	11.8	9.4	9.7	10.0	13.4	12.8	12.1	12.2	12.1	11.6	13.1	10.3	13.7	5.2	8.7	8.1	9.0	8.5	8.7	9.0	6.9	11.8	11.5	11.0	10.3	7.1	8.5	9.5
1936	13.8	15.7	13.2	12.4	13.8	13.0	12.5	13.5	13.7	12.0	8.7	10.8	11.2	13.2	14.6	12.1	12.3	13.5	12.2	12.9	11.5	12.7	6.	9.7	8.9	8.5	8.9	8.5	9.3	9.1	6.7	12.7	12.0	9.9	9.7	7.8	9.7	9.8

TABLE V. DEATHS UNDER 1 PER 1,000 BIRTHS IN WARDS.

Old Wards	St. Paul's	St. Mary's	Duddeston and Nechells	St. Bartholomew's	St. Martin's	Market Hall	Ladywood	Central Wards	Lozells	Aston	Washwood Heath	Saltley	Small Heath	Sparkbrook	Balsall Heath	Edgbaston	Rotton Park	All Saints'	Middle Ring	Soho	Sandwell	Handsworth	Perry Barr	Erdington North	Erdington South	Yardley	Acoc's Green	Sparkhill	Moseley and King's Heath	Selly Oak	King's Norton	Northfield	Harborne	Outer Ring																																																																																																																																																									
	1916 1917 1918 1919 1920 Average	160 115 156 109 112 130	159 168 148 103 121 140	164 136 104 105 93 120	139 132 137 102 111 124	150 112 120 95 102 116	139 120 152 120 85 117	121 112 104 100 105 108	147 123 132 105 104 122	82 93 111 79 80 89	114 105 113 93 90 101	93 96 70 100 64 86	79 97 69 100 67 82	69 94 69 60 80 76	70 110 99 99 60 84	62 83 86 64 80 79	98 73 80 101 61 75	96 93 88 88 97 94	86 97 92 92 76 86	94 74 83 97 55 81	68 37 64 71 75 63	91 71 72 63 51 70	? ? ? ? ? ?	80 74 57 39 61 62	39 80 57 79 47 60	83 95 67 83 54 76	76 90 66 47 64 69	55 90 66 36 73 64	76 41 66 66 44 53	83 77 60 69 43 69	61 44 60 60 69 62	59 50 70 43 28 50	69 44 89 79 50 66	72 67 69 64 55 65																																																																																																																																																									
1921 1922 1923 1924 1925 Average	106 105 104 87 120 104	116 117 103 123 100 112	104 102 99 103 101 102	113 115 81 119 106 107	85 107 93 110 107 100	117 113 80 81 119 102	96 102 79 102 73 87	105 109 91 101 104 102	147 123 132 105 104 122	82 93 111 79 80 89	114 105 113 93 90 101	93 96 70 100 64 86	79 97 69 100 67 82	69 94 69 60 80 76	70 110 99 99 60 84	62 83 86 64 80 79	98 73 80 101 61 75	96 93 88 88 97 94	86 97 92 92 76 86	94 74 83 97 55 81	68 37 64 71 75 63	91 71 72 63 51 70	? ? ? ? ? ?	80 74 57 39 61 62	39 80 57 79 47 60	83 95 67 83 54 76	76 90 66 47 64 69	55 90 66 36 73 64	76 41 66 66 44 53	83 77 60 69 43 69	61 44 60 60 69 62	59 50 70 43 28 50	69 44 89 79 50 66	72 67 69 64 55 65																																																																																																																																																									
1926 1927 1928 1929 1930 Average	106 115 71 120 89 100	122 115 101 111 75 105	79 104 73 125 67 90	98 81 89 98 74 88	86 89 84 108 91 92	106 85 100 73 88 90	106 85 100 73 88 90	81 78 69 108 74 82	97 95 84 106 80 92	52 78 63 80 53 65	77 80 57 86 61 72	66 73 62 92 37 66	43 64 59 69 54 60	48 34 59 50 42 47	70 73 56 45 55 60	52 87 62 46 51 69	59 66 75 82 72 67	65 82 46 72 67 66	76 81 74 92 65 78	98 44 68 46 38 59	53 47 34 43 47 45	? ? 0 0 63 ?	46 59 62 56 54 55	52 49 40 49 51 48	56 66 43 65 55 57	48 36 49 68 41 63	70 71 47 47 38 51	54 42 82 54 49 45	65 44 54 54 36 51	68 45 46 60 38 51	90 78 65 50 58 69	65 44 44 54 49 51	65 45 46 46 60 38	59 49 49 49 49 67	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46 60 38	90 78 65 50 58 53	65 44 44 54 49 36	65 44 44 54 49 51	68 45 46 46

New Wards	St. Paul's	St. Mary's	Duddeston and Nechells	St. Bartholomew's	St. Martin's	Market Hall	Ladywood	Central Wards	Lozells	Aston	Washwood Heath	Saltley	Small Heath	Sparkbrook	Balsall Heath	Edgbaston	Rotton Park	All Saints'	Middle Ring	Soho	Sandwell	Handsworth	Perry Barr	Erdington	Gravelly Hill	Bromford	Stechford	Yardley	Acoc's Green	Hall Green	Sparkhill	Moseley and King's Heath	Selly Oak	King's Norton	Northfield	Harborne	Outer Ring
	1935	94	98	66	74	100	80	84	85	72	59	30	80	51	50	62	64	69	59	85	38	45	55	49	60	56	80	67	81	38	47	69	38	63	56	56	58
1936	87	89	82	73	99	90	87	87	48	78	47	80	48	76	55	47	61	79	62	93	40	46	56	53	34	33	69	62	50	53	53	54	41	37	53	65	52

NOTE.—Figures for individual Wards for 1935 and 1936 cannot be compared with those for preceding years, owing to many alterations in the boundaries of the Wards in November, 1934. The averages for the Groups of Wards (Central, Middle Ring, Outer Ring) may, however, be considered as roughly comparable.

TABLE VI. BIRTH-RATES IN WARDS.

Old Wards	St. Paul's	St. Mary's	Duddeston and Nechells	St. Bartholomew's	St. Martin's	Market Hall	Ladywood	Central Wards	Lozells	Aston	Washwood Heath	Saltley	Small Heath	Sparkbrook	Balsall Heath	Edgbaston	Rotton Park	All Saints'	Middle Ring	Soho	Sandwell	Handsworth	Perry Barr	Erdington North	Erdington South	Vardley	Acock's Green	Sparkhill	Moseley and King's Heath	Selly Oak	King's Norton	Northfield	Harborne	Outer Ring		
1916	28.9	29.3	30.9	28.8	0.19	8.25	8.27	4.20	8.28	8.23	8.26	0.21	8.23	0.19	5.15	3.23	8.26	6.22	9.19	3.19	3.18	0	?	19.4	19.8	19.4	22.7	17.6	15.7	24.0	21.3	19.1	19.0	19.6		
1917	26.7	23.3	27.5	28.5	24.5	18.8	23.2	24.6	19.4	23.1	20.4	20.2	19.9	19.2	18.1	13.4	20.7	22.1	19.7	13.2	16.5	15.0	?	14.9	17.4	19.9	19.7	12.8	13.4	19.2	14.5	16.2	16.4	16.1		
1918	24.7	24.1	29.2	27.3	24.3	21.6	23.9	25.0	19.2	21.3	20.0	20.1	18.6	18.0	18.2	13.8	21.0	22.4	19.3	14.7	12.5	14.4	?	16.2	15.9	18.8	18.7	13.0	13.5	18.1	16.3	20.9	14.0	15.9		
1919	29.1	28.6	29.5	29.0	0.29	1.21	5.26	6.27	6.18	5.24	4.21	2.19	3.17	19.8	18.5	15.0	22.0	23.3	320.0	17.3	14.7	16.0	?	17.2	19.2	18.1	18.2	14.5	14.8	21.1	15.0	17.2	15.3	16.8		
1920	37.6	37.2	39.6	35.9	34.9	30.2	33.5	35.6	25.2	32.0	27.9	28.6	23.4	25.9	25.1	18.8	30.2	31.3	26.8	23.8	21.7	21.4	?	24.7	22.8	26.4	24.4	19.3	19.9	26.7	21.3	22.9	19.6	22.7		
Average	29.4	28.5	31.3	29.9	28.2	2.22	4.26	6.28	0.20	6.25	9.22	7.22	8.20	3.21	2.19	9.15	3.23	5.25	1.21	7.17	7.16	9.17	0	18.5	19.0	20.5	20.7	15.4	15.5	21.8	17.7	19.3	16.9	18.2		
1921	31.8	35.7	32.9	32.3	30.8	28.0	30.8	31.8	28.1	8.28	7.23	8.23	9.20	5.23	8.22	5.15	2.24	8.25	0.23	0.20	1.16	4.17	?	21.1	20.0	20.5	21.0	19.3	14.8	20.8	18.0	19.6	20.2	19.2		
1922	29.7	30.8	27.5	28.5	28.6	20.8	25.4	27.3	31.8	3.25	4.21	9.20	6.18	3.20	2.21	5.14	1.22	6.23	6.20	7.18	7.15	0.15	4	?	20.7	15.7	18.9	18.0	17.4	3.17	6.17	6.17	5.15	5.17	1	
1923	28.2	30.3	32.7	5.29	0.27	0.20	7.25	8.26	9.18	4.23	1.22	1.21	6.15	5.18	5.18	6.13	5.21	7.21	9.19	5.16	0.14	1.14	?	18.1	16.8	17.4	17.0	17.1	13.2	17.1	17.1	12.0	8.13	0.16	3	
1924	28.0	28.1	27.0	26.8	24.1	20.7	21.9	25.2	21.7	4.23	1.20	6.18	4.14	1.16	9.18	4.13	3.19	3.20	6.18	2.15	1.12	7.12	?	17.1	17.5	15.0	16.7	16.2	12.8	15.7	14.5	19.8	14.5	15.4		
1925	23.5	28.3	32.5	3.25	1.24	6.19	5.22	2.24	1.16	7.22	5.19	7.19	7.14	6.16	4.17	0.12	0.19	9.20	1.17	9.16	3.12	4.12	6	?	20.3	14.9	16.3	16.7	17.1	11.5	16.0	14.2	17.7	11.0	15.2	
Average	28.2	30.6	28.0	28.3	27.0	2.21	4.25	6.27	1.18	5.24	6.21	6.20	8.16	6.19	2.19	6.13	6.21	7.22	2.19	9.17	2.14	1.14	5	19.5	17.0	17.6	17.9	17.4	13.3	17.6	16.3	19.1	14.8	16.6		
1926	25.4	27.8	24.8	24.8	23.8	18.9	22.9	24.1	17.6	20.4	18.8	19.8	15.3	15.4	17.0	12.1	18.0	19.4	17.4	14.2	12.6	11.0	?	20.8	14.8	16.5	14.3	17.1	12.5	14.1	14.1	16.5	11.5	14.6		
1927	25.4	25.8	23.1	23.3	3.22	0.19	2.20	4.22	7.16	4.19	9.17	7.17	7.15	2.15	3.16	0.11	6.16	5.17	6.16	4.14	1.12	2.11	?	20.3	14.8	18.9	14.3	16.2	15.4	13.6	13.6	18.3	11.2	15.0		
1928	24.0	27.3	32.4	4.21	5.22	2.18	4.18	9.22	1.16	1.19	8.17	5.17	7.15	2.15	3.16	5.11	4.17	1.18	2.16	5.13	1.11	5.10	2	8.4	18.5	15.2	19.9	18.7	12.6	13.2	13.3	15.3	12.5	14.3		
1929	23.8	25.6	20.4	21.5	22.3	19.1	19.8	21.8	15.3	17.8	16.4	17.4	14.9	14.4	2.11	0.15	8.17	0.15	4.11	5.10	9.12	0	16.8	18.6	16.8	18.1	20.0	16.0	12.8	13.0	13.4	16.0	12.6	14.9		
1930	22.5	25.3	32.1	6.20	9.21	8.17	6.19	5.21	3.16	4.18	8.15	6.14	4.15	6.15	4.15	2.12	3.18	4.18	4.16	0.11	8.10	5.11	7.27	18.9	18.1	17.5	21.1	16.7	13.1	13.1	12.6	12.3	12.5	16.2		
Average	24.2	26.4	22.5	22.4	22.4	18.6	20.3	22.4	16.4	19.3	17.2	17.4	15.2	15.2	15.2	11.7	17.2	18.1	16.3	12.9	11.5	11.3	?	19.4	15.9	18.2	17.7	16.7	13.3	13.4	13.4	17.5	12.1	15.0		
1931	21.4	22.2	20.5	21.2	19.9	17.6	17.2	20.1	15.7	19.4	15.9	14.3	14.7	15.2	14.4	9.7	14.3	16.4	15.0	10.7	10.1	12.6	34.8	17.4	15.9	15.2	18.7	15.7	13.4	13.4	12.2	22.9	12.4	16.1		
1932	21.5	20.6	21.5	20.2	18.6	15.5	19.4	19.6	16.3	17.8	14.6	14.5	13.7	14.7	13.3	10.7	16.0	16.6	14.8	10.7	11.7	10.4	27.5	13.6	13.6	15.5	17.8	15.3	13.4	13.2	11.9	21.1	12.4	14.9		
1933	18.9	19.3	18.1	18.7	18.4	17.7	16.2	18.2	13.1	15.0	13.1	12.7	12.4	14.7	13.4	8.6	13.9	13.8	13.1	10.5	10.2	10.4	22.2	13.8	13.5	14.2	14.9	13.2	10.8	12.8	11.3	320.1	10.4	13.4		
1934	18.5	20.2	19.8	17.5	19.2	15.7	16.8	18.2	14.7	16.5	14.1	12.2	12.2	15.2	13.5	9.0	14.2	14.0	13.6	10.0	11.4	11.0	23.8	13.2	13.2	15.1	16.0	15.1	13.8	11.8	12.6	11.4	20.9	11.2	14.1	
Average	20.1	20.6	20.0	19.4	19.0	16.6	17.5	19.0	14.9	17.2	14.4	13.4	13.3	14.9	13.6	9.5	14.6	15.2	14.1	10.5	10.8	11.1	127.1	14.5	14.5	15.2	16.6	14.5	12.3	13.0	11.7	21.1	6.14	6.6		

New Wards	St. Paul's	St. Mary's	Duddeston and Nechells	St. Bartholomew's	St. Martin's	Market Hall	Ladywood	Central Wards	Lozells	Aston	Washwood Heath	Saltley	Small Heath	Sparkbrook	Balsall Heath	Edgbaston	Rotton Park	All Saints'	Middle Ring	Soho	Sandwell	Handsworth	Perry Barr	Erdington	Gravelly Hill	Bromford	Stechford	Vardley	Acock's Green	Hall Green	Sparkhill	Moseley and King's Heath	Selly Oak	King's Norton	Northfield	Harborne	Outer Ring	
1935	18.4	18.5	20.0	19.2	18.4	15.9	18.4	18.4	14.8	16.1	11.8	13.7	13.9	16.2	13.3	7.7	14.4	14.5	13.6	11.5	11.5	12.2	220.9	14.4	13.6	13.9	11.5	0.14	5.15	5.11	8.12	3.12	8.12	7.16	9.12	0.14	3	
1936	19.4	18.4	20.0	18.8	18.3	14.5	16.3	18.0	17.5	17.9	12.4	15.4	12.2	15.0	13.3	8.6	15.3	14.8	14.2	11.1	8.13	8.23	4.11	9.14	1.16	5.19	8.14	7.14	7.15	0.13	4.13	8.14	0.13	6.18	0.12	2.14	8	

NOTE.—Figures for individual Wards for 1935 and 1936 cannot be compared with those for preceding years, owing to many alterations in the boundaries of the Wards in November, 1934. The averages for the Groups of Wards (Central, Middle Ring, Outer Ring) may, however, be considered as roughly comparable.

TABLE VII.

Cases of Infectious Disease notified during the Year 1936. Classified according to sex and ages.

DISEASE.	AGES.														TOTALS.
	Sex.	0-	1-	2-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75 up.	
Enteric Fever	M.	—	—	1	3	1	—	2	4	—	2	—	—	—	13
	F.	—	—	2	1	1	3	4	1	—	2	—	—	—	15
Scarlet Fever	M.	13	47	324	773	367	137	85	62	24	9	3	2	—	1,846
	F.	6	29	266	881	526	186	116	76	33	13	2	1	—	2,135
Diphtheria	M.	9	17	150	269	56	20	13	11	7	—	1	—	—	553
	F.	4	17	115	273	68	46	25	25	9	7	—	—	—	589
Erysipelas	M.	8	3	3	14	9	5	9	26	40	63	57	34	11	282
	F.	7	4	5	10	8	16	11	39	63	73	67	44	11	358
Pulmonary Tuberculosis	M.	3	2	14	13	6	39	58	110	103	119	83	14	2	566
	F.	4	2	11	10	13	70	69	90	49	48	23	6	1	396
Tubercular Meningitis	M.	3	3	1	1	—	1	1	—	—	—	—	—	—	10
	F.	—	2	2	2	3	1	—	—	1	—	—	—	—	11
Tuberculosis of Peritoneum and Intestines	M.	1	—	1	2	2	2	—	1	—	—	2	—	—	11
	F.	—	—	1	1	2	1	1	6	2	1	—	—	—	15
Other forms of Tuberculosis	M.	1	1	6	7	15	9	6	5	7	7	2	—	1	67
	F.	1	3	6	6	8	10	5	10	4	5	2	—	—	60
Encephalitis Lethargica	M.	—	—	—	—	—	—	1	—	2	2	2	2	—	9
	F.	—	—	—	—	—	—	2	5	3	1	2	1	—	14
Cerebro-Spinal Fever	M.	4	1	2	1	1	6	1	2	—	—	—	—	—	18
	F.	7	3	4	1	2	—	1	1	1	—	—	—	—	20
Pneumonia	M.	76	86	132	122	33	54	64	140	131	155	124	45	33	1,195
	F.	53	53	111	82	32	32	26	76	61	79	49	53	41	748
Puerperal Fever	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	F.	—	—	—	—	—	4	23	51	18	—	—	—	—	96
Puerperal Pyrexia	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	F.	—	—	—	—	—	10	45	86	27	—	—	—	—	168
Ophthalmia Neonatorum	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	F.	812	—	—	—	—	—	—	—	—	—	—	—	—	812
TOTAL		1,012	273	1,157	2,472	1,153	652	568	827	585	586	420	202	100	10,007

Smallpox—0; Malaria—6 Males, 0 Females; Dysentery—8 Males, 14 Females; Poliomyelitis—4 Males, 7 Females; Polio-encephalitis—1 Male, 0 Female;
Continued Fever—0.

TABLE VIII.

Cases of Infectious Disease notified during the Year 1936. Classified according to Wards.

DISEASE.	Acock's Green.	All Saints'	Aston.	Balsall Heath	Bromford	Duddeston and Nechells	Edgbaston	Erdington	Gravelly Hill	Hall Green	Handsworth	Harborne	King's Norton	Ladywood	Lozells	Market Hall	Moseley and King's Heath	Northfield	Perry Barr	Rotton Park	St. Bartholomew's	St. Martin's	St. Mary's	St. Paul's	Saley	Sandwell	Selly Oak	Small Heath	Soho	Sparkbrook	Sparkhill	Stechford	Washwood Heath	Vardley	Not Located	City
Enteric Fever ...	3	1	—	2	—	—	2	2	2	3	—	1	1	—	—	—	1	2	1	—	1	2	—	—	1	1	—	—	—	—	—	—	—	—	1	28
Continued Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Malaria ...	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	
Trench Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Smallpox ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Scarlet Fever ...	314	76	105	73	138	153	77	115	79	213	57	64	77	97	75	104	68	218	231	86	100	135	82	77	84	44	99	116	43	115	117	133	134	127	155	3981
Diphtheria ...	28	68	48	36	37	61	21	35	25	19	15	3	9	24	49	21	18	27	48	34	39	82	69	69	9	12	12	8	25	24	27	18	15	23	84	1142
Dysentery ...	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Erysipelas ...	9	18	28	21	10	51	7	8	17	15	15	9	8	22	15	14	10	18	24	12	18	32	27	24	22	4	4	16	11	22	8	15	13	16	77	640
Pulmonary Tuberculosis	24	37	30	40	27	45	16	35	21	15	26	8	15	26	26	31	24	31	40	43	49	55	43	37	26	9	26	19	24	38	13	19	17	77	962	
Tubercular Meningitis	—	—	—	—	1	2	1	—	1	1	—	—	—	1	—	2	2	1	1	3	—	1	—	—	2	—	—	—	—	—	1	—	—	—	—	21
Tuberculosis of Peritoneum and Intestines	—	2	—	—	—	—	1	—	1	1	2	—	—	—	—	2	—	1	—	2	—	1	1	—	—	2	1	1	1	2	1	1	1	—	26	
Tuberculosis of Spinal Column	1	—	—	—	2	—	—	1	—	—	—	—	—	1	1	—	—	3	1	1	1	—	1	1	—	—	—	—	—	—	—	—	—	—	16	
Tuberculosis of Joints	1	1	2	1	1	—	1	—	—	2	—	—	—	2	4	1	1	—	1	1	3	—	—	—	—	1	—	—	3	1	—	—	1	—	32	
Tuberculosis of Other Organs	1	1	3	4	1	—	3	—	3	3	—	2	1	10	1	—	2	5	5	—	1	4	2	3	4	1	—	—	1	2	—	—	1	—	68	
Disseminated Tuberculosis	1	—	—	—	—	—	—	2	—	1	—	—	—	1	1	—	—	1	1	—	—	1	1	—	—	1	—	—	—	—	—	—	—	—	11	
Encephalitis Lethargica	—	1	2	—	—	—	1	—	—	1	—	—	2	1	—	—	—	1	1	—	—	1	2	—	—	1	—	—	—	2	—	—	1	—	23	
Cerebro-Spinal Fever	4	3	1	3	—	2	1	1	—	1	—	—	—	1	—	—	2	—	2	1	—	2	2	2	1	1	2	3	—	2	—	—	1	—	38	
Polio-myelitis	1	—	1	—	3	—	1	—	—	1	1	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	11	
Polio-encephalitis	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Pneumonia	77	60	136	69	65	149	39	46	58	53	32	14	21	68	45	37	48	45	75	52	57	78	126	57	42	23	23	56	33	51	32	68	36	41	31	1943
Puerperal Fever	2	3	3	2	3	1	—	2	2	—	5	1	2	4	7	—	3	3	10	3	4	4	5	—	—	—	1	1	1	7	—	—	1	—	9	96
Puerperal Pyrexia	2	5	9	7	3	16	4	2	3	4	2	4	4	2	6	3	6	5	5	2	6	8	7	4	2	—	5	7	3	2	5	4	2	3	16	168
Ophthalmia Neonatorum	14	28	33	18	17	58	8	19	16	26	16	5	3	25	32	22	13	5	80	13	43	55	36	48	20	8	10	24	11	37	15	21	17	4	812	
TOTAL ...	483	304	401	276	311	540	182	269	228	358	173	111	143	284	262	239	198	366	529	254	327	461	407	325	215	107	187	256	156	306	224	286	239	256	384	10,047

TABLE IX. PULMONARY TUBERCULOSIS. CASE-RATES IN WARDS.

Old Wards	St. Paul's	St. Mary's	Duddston and Nechells	St. Bartholomew's	St. Martin's	Market Hall	Ladywood	Central Wards	Lozells	Aston	Washwood Heath	Saltley	Small Heath	Sparkbrook	Balsall Heath	Edgbaston	Rotton Park	All Saints'	Middle Ring	Soho	Sandwell	Handsworth	Perry Barr	Erdington North	Erdington South	Yardley	Acoc's Green	Sparkhill	Moseley and King's Heath	Selly Oak	King's Norton	Northfield	Harborne	Outer Ring	
1916	5.11	6.75	6.64	6.66	5.66	4.33	4.30	5.64	3.87	3.53	3.99	4.19	4.44	3.67	3.15	2.81	4.05	3.94	3.76	2.86	2.35	2.78	?	1.66	2.17	2.50	2.65	2.53	1.64	2.27	2.14	1.87	1.19	2.20	
1917	5.26	5.67	4.52	6.32	4.36	6.13	4.12	5.20	3.47	3.03	4.22	2.93	3.42	2.85	3.12	1.63	6.23	7.73	1.12	1.72	2.61	2.59	?	2.25	2.21	2.31	3.58	2.81	1.33	2.79	1.97	1.82	1.85	2.33	
1918	5.46	4.42	4.34	5.33	5.32	5.66	8.05	3.33	1.33	0.92	2.72	2.08	3.40	3.56	2.97	2.81	4.04	3.55	3.12	1.38	1.98	3.48	?	2.24	2.46	2.15	2.66	2.49	2.12	2.53	1.35	3.33	1.80	2.31	
1919	4.30	4.94	4.13	4.00	4.45	3.99	4.14	2.83	3.03	2.22	0.51	1.99	2.30	2.62	2.79	2.22	4.02	2.89	2.74	2.55	1.35	2.89	?	2.14	2.36	1.90	2.70	2.23	1.22	2.34	1.66	1.90	1.81	2.08	
1920	3.63	4.91	4.09	4.23	4.13	2.62	4.12	3.96	2.56	2.95	2.39	2.48	2.11	2.61	2.75	1.50	4.16	3.20	2.67	2.81	1.48	2.84	?	2.41	2.19	2.18	2.12	2.03	1.83	2.43	1.65	2.04	1.78	2.14	
Average	4.75	5.34	4.74	5.31	4.78	4.55	4.70	4.88	2.73	2.16	2.91	2.61	3.12	3.06	2.96	2.30	3.98	3.43	3.08	2.35	1.95	2.92	?	2.14	2.28	2.21	2.74	2.42	1.63	2.47	1.75	2.19	1.69	2.21	
1921	3.13	4.93	4.41	2.51	3.01	2.80	2.55	2.99	2.20	2.65	2.11	1.76	1.58	2.21	2.00	1.28	3.32	2.62	0.41	1.54	1.08	2.09	?	1.44	1.46	1.81	1.47	2.05	1.62	1.41	0.77	0.83	1.39	1.46	
1922	2.23	2.20	2.80	2.47	3.42	2.40	2.21	2.68	1.59	1.74	1.81	1.17	1.41	1.41	1.21	1.71	2.11	1.63	1.81	1.60	1.15	0.62	1.17	?	1.71	1.40	1.45	1.20	1.88	0.84	1.74	0.67	1.81	1.44	1.31
1923	2.13	1.43	2.20	2.51	3.88	2.46	1.97	2.76	1.90	1.95	1.79	1.41	1.69	1.88	2.22	1.40	2.28	1.60	1.81	1.40	0.61	1.31	?	1.52	1.39	1.39	1.35	1.57	1.31	1.04	1.09	1.22	1.08	1.25	
1924	2.16	3.02	2.69	2.40	4.39	2.11	2.10	2.70	1.65	2.43	1.88	1.62	1.54	3.22	0.91	1.01	2.20	1.62	1.74	1.38	0.76	1.31	?	0.92	1.52	2.71	3.41	2.51	1.10	0.93	1.34	1.28	1.53	1.23	
1925	1.54	2.37	2.22	2.44	3.41	1.90	1.85	2.25	1.59	2.05	1.37	1.34	1.44	0.91	0.58	1.09	1.62	1.10	1.43	1.19	0.97	1.47	?	1.49	0.92	0.99	1.06	1.34	0.75	1.14	1.01	1.47	0.81	1.12	
Average	2.24	3.04	2.86	2.47	3.62	2.32	2.14	2.68	1.79	2.16	1.79	1.46	1.54	1.58	2.01	1.20	2.01	1.68	1.72	1.33	0.81	1.47	?	1.42	1.34	1.38	1.28	1.62	1.13	2.50	0.98	1.32	1.25	1.27	
1926	2.28	2.50	2.21	1.89	2.52	1.46	1.62	2.07	1.62	1.98	1.86	1.30	0.83	1.22	1.85	0.97	1.33	1.13	1.41	0.64	0.96	1.27	?	0.95	1.03	0.78	0.88	1.02	0.67	1.21	0.83	2.06	1.32	1.05	
1927	2.01	2.87	2.14	1.97	2.24	1.90	1.90	2.15	1.36	1.69	1.05	1.45	0.95	1.14	1.53	1.02	1.52	1.35	1.30	1.43	0.87	0.61	?	0.63	0.72	0.87	0.53	0.91	0.87	1.33	1.16	1.30	0.70	0.92	
1928	1.90	2.52	2.28	1.80	2.52	1.55	1.89	2.07	1.48	1.82	1.06	0.98	1.12	1.29	1.10	0.92	1.34	1.56	1.27	1.23	1.08	1.25	?	0.92	1.17	1.25	0.73	0.93	0.71	1.32	1.00	1.33	0.81	0.98	
1929	2.08	1.90	2.45	1.50	1.98	2.07	1.46	1.92	1.27	1.92	0.95	0.97	0.92	1.17	1.27	0.75	1.54	1.55	1.23	1.09	0.90	0.97	2.50	1.09	0.83	1.47	1.00	0.78	0.60	0.70	0.56	1.30	0.96	1.05	
1930	2.05	1.66	1.74	1.41	1.76	1.55	2.06	1.75	1.72	1.89	1.16	0.93	1.15	0.87	1.53	0.65	1.30	1.39	1.26	0.92	1.03	1.01	0.49	1.24	1.10	1.19	1.17	0.80	0.58	1.01	0.58	0.91	0.46	0.89	
Average	2.06	2.29	2.16	1.71	2.20	1.71	1.79	1.99	1.49	1.86	1.22	1.13	0.99	1.14	1.46	0.86	1.41	1.40	1.29	1.06	0.97	1.02	?	0.97	0.97	1.11	0.86	0.89	0.69	1.11	0.83	1.38	0.85	0.98	
1931	1.71	2.49	2.38	1.68	1.94	2.26	1.90	2.05	1.55	1.59	1.18	1.20	1.48	1.35	1.40	0.92	1.38	1.21	1.42	1.19	0.82	0.65	1.30	1.29	1.15	0.78	1.10	0.94	0.74	0.87	0.56	1.20	0.82	0.96	
1932	1.69	1.76	2.97	1.74	1.54	1.45	2.21	1.91	1.19	1.75	1.11	1.33	1.03	1.19	1.39	0.79	1.43	1.58	1.28	1.02	0.87	0.77	0.82	0.95	0.80	1.10	0.84	0.45	0.66	1.09	0.73	1.15	0.49	0.84	
1933	1.36	1.86	2.21	1.81	1.59	1.54	1.71	1.73	1.56	1.67	1.11	0.98	1.01	1.11	1.03	1.25	1.04	1.31	1.21	1.19	0.51	1.31	1.18	0.99	0.95	1.09	0.93	0.85	0.65	1.13	0.69	1.15	0.62	0.98	
1934	1.74	1.79	1.73	1.50	2.19	1.73	1.33	1.71	1.34	0.98	1.18	1.23	1.12	1.03	1.27	0.96	1.37	1.16	1.61	1.57	0.96	1.33	0.79	0.85	0.78	1.01	0.85	0.47	0.63	1.08	0.77	0.90	0.73	0.91	
Average	1.62	1.97	2.32	1.68	1.81	1.74	1.79	1.85	1.41	1.50	1.14	1.18	1.16	1.17	1.27	0.98	1.30	1.54	1.27	1.24	0.92	1.01	1.02	1.02	0.92	1.00	0.93	0.68	0.67	1.04	0.69	1.10	0.66	0.92	

New Wards	St. Paul's	St. Mary's	Duddeston and Nechells	St. Bartholomew's	St. Martin's	Market Hall	Ladywood	Central Wards	Lozells	Aston	Washwood Heath	Saltley	Small Heath	Sparkbrook	Balsall Heath	Edgbaston	Rotton Park	All Saints'	Middle Ring	Soho	Sandwell	Handsworth	Perry Barr	Erdington	Gravelly Hill	Bromford	Stechford	Yardley	Acoc's Green	Hall Green	Sparkhill	Moseley and King's Heath	Selly Oak	King's Norton	Northfield	Harborne	Outer Ring
1935	1.07	1.72	1.65	1.66	1.54	0.82	1.16	1.37	0.96	1.01	0.86	0.78	0.75	1.18	1.43	0.48	1.15	1.32	0.99	1.47	0.44	0.85	0.74	0.82	0.85	1.07	0.85	0.54	0.86	0.77	0.64	0.42	0.93	0.93	0.57	0.72	0.79
1936	1.22	1.53	1.27	1.53	1.54	1.57	0.92	1.37	0.91	0.91	0.55	0.90	0.65	1.27	1.23	0.59	1.38	1.23	0.96	1.00	0.43	0.97	0.93	1.23	0.68	0.97	0.76	0.95	0.68	0.38	0.40	0.61	0.88	0.47	0.80	0.30	0.73

NOTE.—Figures for individual Wards for 1935 and 1936 cannot be compared with those for preceding years, owing to many alterations in the boundaries of the Wards in November, 1934. The averages for the Groups of Wards (Central, Middle Ring, Outer Ring) may, however, be considered as roughly comparable.

TABLE X.

Meteorology and Mortality in each week of the year 1936.

WEEK.		Total Deaths.	Deaths under 1 year.	DEATHS FROM						TEMPERATURE of the Air.				Horizontal Movement of Air in Miles.	Hours of Sunshine.	Rainfall in Inches
No.	Ending. 1936.			Measles.	Whooping Cough.	Diarrhoea and Enteritis under 2.	Pulmonary Tuberculosis.	Other Forms of Tuberculosis.	Respiratory Diseases.	Highest in Shade.	Lowest in Shade.	Mean of Daily Maxima and Minima.	of Ground Highest 4 feet Deep.			
1	Jan. 4	295	24	—	2	1	10	3	51	50	30	41.8	45.4	1502	9.2	0.68
2	" 11	300	21	—	2	2	10	2	50	54	37	43.4	45.5	2498	6.6	1.07
3	" 18	293	22	—	1	2	16	1	45	40	25	31.6	45.5	1286	12.3	0.15
4	" 25	302	22	—	4	2	20	2	44	45	24	35.0	44.5	1931	7.1	0.72
5	Feb. 1	363	35	—	3	—	24	2	58	48	36	42.4	44.1	1632	8.0	1.48
6	" 8	295	26	—	5	2	10	1	49	43	25	34.4	44.3	1791	27.5	0.07
7	" 15	274	35	—	4	3	21	2	51	43	24	32.4	43.6	2100	23.8	—
8	" 22	328	31	—	3	5	18	1	50	51	29	39.9	42.8	1741	15.1	1.95
9	" 29	307	30	—	5	2	19	1	40	45	30	36.6	42.8	1589	10.4	0.57
10	Mar. 7	285	31	2	1	6	20	3	35	47	30	37.9	42.6	1814	13.7	0.37
11	" 14	258	34	—	5	3	7	2	46	51	33	40.8	43.2	1368	0.4	0.20
12	" 21	246	28	1	6	1	18	4	35	61	34	46.1	43.5	1224	11.7	0.04
13	" 28	259	24	3	4	1	15	—	27	58	40	48.6	44.7	1822	13.4	1.36
14	April 4	211	16	—	3	4	12	—	28	59	35	47.1	45.6	2171	10.6	0.92
15	" 11	224	15	—	1	—	18	1	22	52	33	41.7	45.6	1728	24.3	0.05
16	" 18	251	22	4	4	1	20	3	26	54	31	39.1	44.8	1641	29.9	0.39
17	" 25	252	26	1	5	1	16	1	26	60	31	43.3	44.2	1728	39.6	0.97
18	May 2	245	25	—	4	2	15	1	32	60	38	49.0	45.3	1345	60.2	—
19	" 9	225	23	3	2	1	13	2	27	63	39	49.9	46.1	1713	6.3	0.18
20	" 16	209	17	1	1	1	14	—	31	74	45	56.2	47.2	986	30.7	0.40
21	" 23	177	15	—	3	1	13	1	17	74	37	52.2	48.3	1882	48.7	0.24
22	" 30	230	24	3	4	2	13	2	13	66	40	50.7	48.4	1489	20.1	0.15
23	June 6	185	16	1	3	—	15	—	12	62	36	47.6	48.2	1456	17.8	0.84
24	" 13	188	19	1	3	1	22	2	15	71	46	56.5	49.0	1067	35.5	0.80
25	" 20	173	12	1	2	—	13	1	16	80	46	59.9	49.9	1577	45.2	0.48
26	" 27	186	14	1	2	—	21	—	11	82	55	64.5	51.9	781	40.6	0.95
27	July 4	182	26	4	2	4	23	2	8	69	53	60.7	52.5	983	22.1	1.66
28	" 11	166	9	2	4	—	7	3	9	72	50	58.5	53.0	1142	22.8	2.42
29	" 18	196	22	1	2	3	14	3	8	69	51	59.0	53.0	1874	24.3	1.30
30	" 25	197	18	1	4	2	9	2	12	66	50	58.4	53.0	1821	31.3	0.99
31	Aug. 1	181	11	—	1	2	8	—	10	69	47	57.9	53.2	1346	29.4	0.50
32	" 8	190	13	2	3	—	9	1	11	71	50	59.5	53.3	1680	36.0	0.24
33	" 15	155	11	—	—	1	11	3	7	73	51	61.5	53.7	917	28.0	0.48
34	" 22	139	9	—	1	—	11	—	8	75	52	61.6	54.3	1147	35.6	0.07
35	" 29	180	19	1	2	1	5	—	8	80	47	63.2	54.9	1029	70.9	—
36	Sept 5	170	12	—	2	2	13	2	9	72	54	62.0	55.4	1349	11.4	0.72
37	" 12	182	23	—	3	1	16	2	9	70	50	59.0	55.4	1661	12.3	1.17
38	" 19	172	20	—	1	2	8	—	9	69	50	58.7	55.0	1302	26.4	0.64
39	" 26	176	12	—	—	3	18	1	6	69	47	58.9	54.8	1204	14.6	0.39
40	Oct. 3	190	14	—	1	2	3	—	14	56	39	49.7	54.8	1218	25.0	0.05
41	" 10	206	16	—	—	—	12	2	12	61	37	47.2	53.7	1219	30.3	0.07
42	" 17	212	14	—	—	1	11	4	18	62	41	51.8	52.5	1840	16.5	0.12
43	" 24	219	19	—	—	5	5	1	24	62	41	50.4	52.0	2102	21.4	0.63
44	" 31	181	11	—	—	3	11	—	16	63	37	46.9	51.8	2390	13.6	0.77
45	Nov. 7	201	15	3	—	3	16	—	20	51	37	45.4	51.0	1540	12.9	0.70
46	" 14	216	16	—	—	1	11	—	19	52	34	43.6	50.4	2037	13.5	1.36
47	" 21	207	21	—	—	1	10	—	17	56	33	43.7	49.5	1704	11.7	0.72
48	" 28	234	19	—	—	3	17	1	17	42	28	35.0	49.0	545	—	0.10
49	Dec. 5	219	13	1	—	—	14	3	16	53	32	44.4	47.7	2519	14.3	0.35
50	" 12	245	20	—	—	1	16	3	28	45	26	33.2	47.5	1485	6.5	0.35
51	" 19	247	19	—	—	1	13	1	33	55	30	43.0	46.3	2824	16.9	1.64
52	" 26	208	12	—	—	—	9	2	29	50	34	43.6	46.6	1860	8.4	0.06
53	1937 Jan. 2	288	20	—	1	2	10	—	52	51	30	41.2	46.6	2109	6.4	0.59

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